2 disc special issue

The best-selling Acorn magazine in the world

ACORN USER

Essential for all users of 32-bit RISC OS computers

Interactive TV at home...



DECEMBER 1995 ACORN USER Cover disc 1

NEW The Big Picture

Try out all the features of Longman Logotron's new painting package

VIRUS CHECKED • VIRUS CHECKED • VIRUS CHECKED • VIRUS CHECKED

DECEMBER 1995 ACORN USER Cover disc 2

NEW Spobbleoid Fantasy

12 exclusive levels of the new game from Fourth Dimension

Elite cheats and enhancements

Plus all our regular items

VIRUS CHECKED • VIRUS CHECKED • VIRUS CHECKED • VIRUS CHECKED

... we talk to a family using Online Media's new technology

- Four Internet packages
- Acorn's future – the facts
- Graphics fun with your Arc
- Software for dyslexics
- ARM 700 upgrade reviewed
- Skillsware and Thames Water
- All the latest news

IDG MEDIA

DECEMBER 1995 Issue 162 £3.75

9 770263 745055 12>

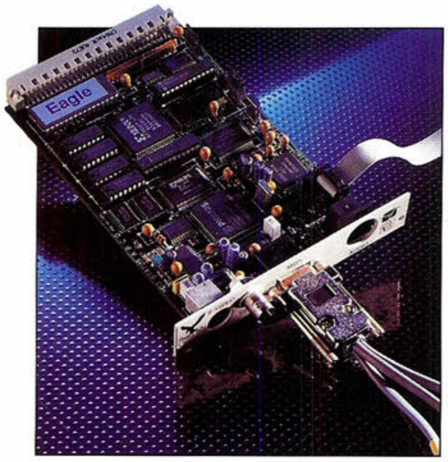
MAKE THE MOST OF MULTI-MEDIA

Are you wondering how to make the most of the multimedia resources available to you — scanned images (drawings or photos etc), video clips, music and sound samples, Replay movies, MPEG video clips or movies, teletext......?

Computer Concepts offer a range of related products that can help you produce your own sound and video productions; all the hardware and software you need to input, manipulate and output stills, video and sound.



The ultimate multi-media expansion card — combining the functionality of a high quality (24bit) video digitiser with real time digital movie capture facilities, stereo sound sampling and playback, plus MIDI. All the software you will need to manipulate the captured data is included in the package — TakeTwo for video manipulation, ScanLight for grabbing and manipulating still images, AudioWorks for manipulating audio samples and generating audio effects and !AudioCtrl provides mixing facilities. The card is also sold with real time video movie compression software from Eidos, which considerably speeds up and simplifies the process of movie generation. The video files you create ean be played back using Acorn Replay. Suitable for any Acorn RISC computer except 3000/4000 series, requires 2MBytes RAM and RISC OS 3.1 or later (4MBytes, an ARM3 and a high data rate IDE or SCSI hard drive for movie recording and sound output).



An optional extra is the latest release from Eidos — their Eidoscope video editing software, which can be used to edit movies created on an Eagle card and includes many professional video editing tools.

EIDOSCOPE

Price: Eagle card with Eidos compression software: £329 + £6 p&p + VAT (£386.57 inc.) Eagle card with Eidoscope: £449 + £6 p&p + VAT (£534.62 inc.) Eidoscope for existing Eagle owners: £169 + VAT (£198.57 inc.)

Acorn Replay

Lark

16 BIT STEREO/AUDIO SYSTEM FOR ACORN RISC COMPUTERS

A 16 bit audio sampling and play back expansion card. Features include stereo line-level input and output, MIDI connection and software support. A copy of AudioWorks is included to handle the capture, manipulation and playback of samples and a copy of !AudioCtrl which controls the Lark's sampling options (for example sampling to memory or disc, continuous of single shot sampling, background or foreground sampling and setting of sample rates and formats). Suitable for any Acorn RISC computer except 3000/4000 series, requires 2MByte and RISC OS 3.1 or later.

Price: £149 + £6 p&p + VAT (£182.12 inc.)



MidiMax Card

An expansion card designed to provide a stand alone MIDI solution at an affordable price. A 16 byte memory buffer is included on the card for both transmit, and receive which means no data is lost even when the MIDI interface is transmitting at maximum rate. Standard MIDI In, Out and Thru connectors are provided, with the added benefit of a second Out connector to ease the interfacing of multiple devices. MidiMax is supplied with the same MIDI support software as the Eagle M2 and offers full compatibility with Acorn MIDI implementation. Suitable for any Acorn RISC computer except 3000/4000 series, requires 1MByte and RISC OS 3.1 or later.

Price: £69 + £6 p&p + VAT (£88.12 inc.)

IN THE

ACORN WORLD

ScanLight Video 256

Combining the ScanLight 256 scanner (400 dpi, 256 grey levels) and GreyHawk digitiser. The digitiser offers real time greyscale video digitising from any video source. Includes the ultra-fast 'TakeOne' previewer, allowing live video in a window on the desktop — at quarter screen size this can update at 50 frames per second, far faster than any other digitiser. ScanLight software provides image enhancement of captured images, such as smoothing,



rotation, cropping, sharpening. Suitable for all models of Acorn RISC computer with 2MBytes.

Computer Concepts offer a range of other colour and greyscale scanners and digitisers — please ask for further details.

Price: £189 + VAT (£222.07 inc.)

Movie Magic

The MPEG card allows full screen, full motion MPEG videos to be played back at better than VHS quality, with CD quality stereo sound tracks. MPEG videos can be played from hard disc or MPEG compatible CD ROM drives. Any Video CD format CDs are suitable (feature films, music videos etc) as are multimedia CDs that include MPEG clips. Any application that can display Replay movies can play MPEG movies. The software provides video type control over the movie eg fast forward, pause etc. Any frame can be captured as a 24 bit full colour sprite. Requires a Risc PC with 4MBytes and a suitable RGB monitor or TV capable of 50Hz PAL modes.

Price: £249 + £6 p&p + VAT (£299.62 inc.)



T.V. Tuner

TV tuner comes in two forms; a tuner only device which allows live TV to be displayed, either through connection to a video composite compatible monitor or in a window on the desktop in machines that have a digitiser installed. The user can scan the frequency range, set up frequency pre-sets and select channels. The second option with Teletext software can access and display all the pages available on Teletext, select Teletext or Fastext pages, decode foreign teletext and save pages out as either text or sprite files. Suitable for any Acorn RISC computer except 3000/4000 series, requires 2MBytes and RISC OS 3.1 or later.

Price: TV Tuner only £89 + £6 p&p + VAT (£111.62 inc.)
TVTuner+Teletext software £159+£6 p&p + VAT (£193.87 inc.)

Pioneer 602X CD Rom drive

Many multimedia resources are supplied on CD, so Computer Concepts also include a CD ROM drive in their range. The Pioneer DRM-602X is a double speed (300 kilobytes per second transfer rate), 6 disc CD ROM drive. Multi session PhotoCD compatible. It can also be used for standard audio compact discs. ArtWorks clip-art CD disc included. Suitable for any model of Acorn RISC computer, requires 2MBytes and a fully Acorn compatible SCSI card with CDFS 2.2.



RRP: £499.00 + £10 p&p + VAT (£539.32 inc.)

Computer Concepts have other products in their range which can also be used in this field — for example a range of video genlocks, colour digitisers and flatbed scanners, the ColourCard graphics accelerator card and many more. Please ask for our Product Guide.

Computer Concepts Ltd

GADDESDEN PLACE • HEMEL HEMPSTEAD • HERTS • HP2 6EX • TEL. 01442 351000 • FAX 01442 351010 • Email: Info@CConcepts.co.uk

CONTENTS

Editor's letter

Online Media: we've all heard the name, but how many of us actually *know* what's going on at Acorn's old premises in Ditton House? Well, now you can find out, thanks to our three-part series on Acorn's new venture. Later articles will focus on the technology involved – this month we meet one of the families who's actually using the system and find out what they think of it.

With the theme of the Acorn World show being the Internet, we could hardly let it pass uncommented on, so also in this issue is a detailed comparison of the Internet packages currently available. It's nice to see our Web site growing as well – it has recently acquired some PD pages kindly contributed by Paul Wheatley that are well worth a visit.

David Matthewman

Managing Editor Pam Turnbull
Editor David Matthewman
Production Editor Judith Chapman
Art Editor Alan Capper
Editorial Assistant Karen Peach
Contributing Editors
Ian Burley (News) Steve Mumford (Games) Jack Kreindler (Graphics) David Dade (Comms) Paul Wheatley (Public Domain) Geoff Preston (Education) Steve Powell (DTP) Alex Singleton (Business)
Advertisement Manager Emma Barr
Assistant Ad Manager Lisa-Jo Oliver
Ad Production Helen Weaver
Ad Typesetting Eddie Burke
Marketing Manager Claire Mawdsley
Production Manager Sandra Childs
Commercial Director Denise Wright
Circulation Director David Wren
Distribution COMAG (01895) 444055
Subscriptions Database Direct 0151-357 1275
Managing Director Ian Bloomfield
Cover Regan

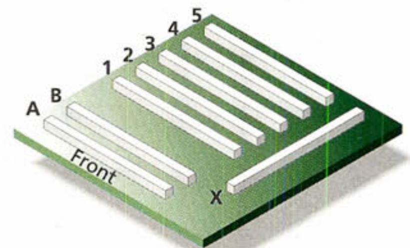
Member of the Audit Bureau of Circulation
Acorn User is an independent publication and Acorn is not responsible for any of the articles in this issue or for any of the opinions expressed.

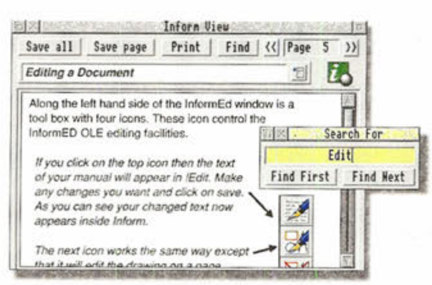
IDG MEDIA

Published by IDG Media Ltd, Media House, Adlington Park, Macclesfield SK10 4NP
e-mail david@acornusr.demon.co.uk
http://www.idg.co.uk/acornuser/
Tel: (01625) 878888 Fax: (01625) 850652
Printed by Duncan Web Offset, Maidstone

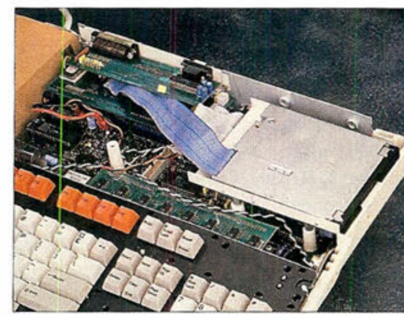
13 issue subscription rate: £37.99 (UK), £53.99 (EU), £68.99 (World)

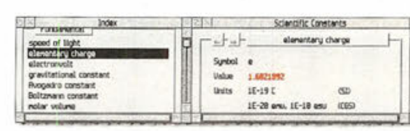
REGULARS



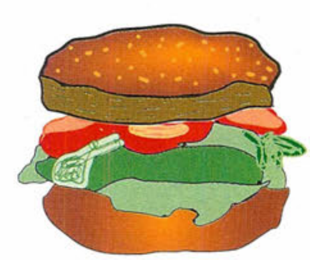


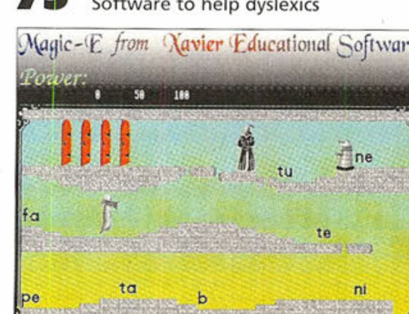
HANDS ON





EDUCATION





December 1995

REVIEWS

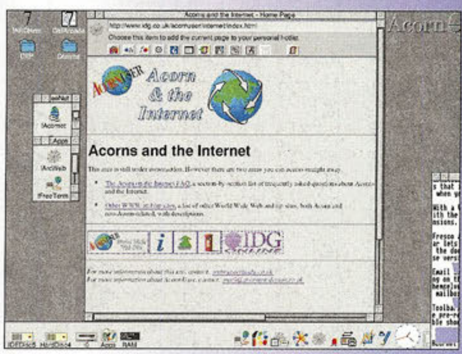


FEATURES









Next month in Acorn User

Christmas special issue

We'll have a host of tips for anyone wanting to fill the Christmas stocking of an Acorn enthusiast, from off-the-wall add-ons for your computer to the best in Public Domain if you're on a budget. There's a large Public Domain section in the magazine, including a round up of the best games on the scene.

We'll have full coverage of the launches at the Acorn World show, with a review of two exciting new graphics modelling packages leading the coverage of a range of new products.

With a couple of unmissable games demos on the cover disc, a report on the technology behind Online Media in the magazine, and the usual up-to-the minute news, you won't want to be without the special Christmas issue of *Acorn User.*

NEXT ISSUE ON SALE 30 NOVEMBER

ICS

0151-625 1006

Order from ... ICS (Ian Copestake Limited), 1 Kington road, West Kirby, WIRRAL, Merseyside, England, L48 5ET • Tel: +44 (0)151 625 1006 Fax: +44 (0)151 625 1007

Special bargains

Bodywise, age 9-14, shop-soiled	SHER	£19
Champions Compilation (not Risc PC)	KRIS	£9
Citizen Swift 24 Printer, ex-demonstration		£125
Epson GQ-5000 Printer, second-hand		£150
Epson LQ-2500+ Printer, second-hand		£150
Games Wizard - The Apprentice	ECLI	£9
IDE Removable Hard Disc Kit, 105 Mb	ICS	CALL
SCSI 5¼" Removable Hard Disc Cartridge, 88 Mb, ex-demonstration	SYQE	£25
SCSI 5¼" Removable Hard Disc Drive, 88 Mb, second-hand	SYQE	£145
SolidsRENDER	SILO	£59
TechWriter	ICON	£95

PC software

Arcshare Client	KCSP	£75
Arcshare Server	KCSP	£95
Encarta	MICR	£99
Windows 95	MICR	POA
Windows for Workgroups 3.11	MICR	£65
Word 6 for Windows	MICR	£269
WordPerfect for Windows Version 6.0a	WORP	POA
Works V3 Windows	MICR	£99

CD rom software

19th Century Biographies	ANGL	£24
Art in the National Curriculum, KS2,3	AVP	£74
Art Store - Animals in Art	ANGL	£49
ArtWorks CD	COMC	£129
Big Green Disc	MEDI	£42
Bitfolio Clip Art Library CD	LONG	£47
Britain 1750-1900: Expansion, Trade and Industry, KS3	AVP	£98
Britain from the Air	ANGL	£39
Britain Since 1930 (Anglia)	ANGL	£24
Britain Since 1930 (AVP), KS2,3	AVP	£98
Castles	ANGL	£39
Clip-Art CD 1	COMC	£18
Clip-Art CD 2	COMC	£18
Counties of the British Isles	ANGL	£39
Countries of the World	ANGL	£39
Creepy Crawlies	MEDI	£42
Dictionary of the Living World	MEDI	£42
Digital Symphony CD Rom	OREG	£25
Dinosaurs! The Multimedia Encyclopedia	MEDI	£42
Disasters	MEDI	£42
Earth and Atmosphere, KS2,3	AVP	£98
English Architecture, KS2,3	AVP	£74
Era of the Second World War, KS3	AVP	£98
Famous Faces from History	AVP	£48
First World War and Its Consequences, KS3	AVP	£98
Garden Wildlife, KS2	ANGL	£39
Ghosts	MEDI	£42
Granny's Garden CD	4MAT	£28
Grooves	MEDI	£42
Hutchinson Encyclopedia	ATTI	£POA
Image Warehouse	MEDI	£42
Impressionism in the Twentieth Century, KS3	AVP	£74
Industrial Revolution, KS3	ANGL	£89
Junior PinPoint Data Workshop	LONG	£68
Kingfisher Children's Micropedia on CD Rom, KS1-3	ESMO	£86
Magpie CD	LONG	£50
Naughty Stories Volumes 1 and 2 (set of 12) CD, age 5-7	SHER	£81
Nelson and the British Navy	ANGL	£49
Oxford Reading Tree Stage 2 Talking Stories CD, age 5-7	SHER	£37
PDCD-1 Issue 2	DATF	£29
PDCD-2	DATF	£27
Perspectives Françaises, KS3,4	AVP	£74
Photobase Decades: The 1920s, The 1930s, The 1940s, The 1950s, The 1960s, The Victorians	LONG	£47
Photobase: Landscapes	LONG	£47
Photobase: Primary Images	LONG	£47
Photobase: Science	LONG	£47
PicturePoint CD, KS1,2	LONG	£27
Seashore Life, age 7-11	ANGL	£39
Simon the Sorcerer CD	GAME	£34
UK Habitats, KS2-4	AVP	£98
Understanding Energy	ANGL	£48
Understanding the Body, age 11-14	ANGL	£39
Victorian Britain, KS2,3	AVP	£98
World Habitats, KS2-4	AVP	£98
World of the Vikings	ANGL	£39
World War II - On the Home Front	ANGL	£24
World's Weather, age 11-14	ANGL	£49

Other software

Selected prices 10th October 1995

10 out of 10 English, limited offer	10OU	£6
10 out of 10 Maths Number, limited offer	10OU	£6
10 out of 10, various titles	10OU	**£10**
1st Paint	RESO	£34
Access+ for Risc PC	ACOR	£98
Advance	ACOR	£98
Advance primary site licence	ACOR	£198
Advance secondary site licence	ACOR	£485
Advance User Guide	ACOR	VO£14
Advantage, KS2,3	LONG	£46
Advantage primary site licence, KS2,3	LONG	£112
Advantage secondary site licence, KS2,3	LONG	£162
All New Talking Animated Alphabet, age 3-6	SHER	£27
Amazing Maths, KS1-4	CAMS	£19
Ancestry II	MINE	£79
Animated Numbers, age 3-6	SHER	£21
Apollonius PDT	OAKS	£140
ArcFax	PILL	**£28**
ArcFS 2	VTI	£20
Archimedes Game Maker's Manual	SIGM	VO£15
ArchiTech	ASPE	£157
ArchiTech site licence	ASPE	£489
Arcterm 7	SERI	£58
Arcturus	OREG	£20
Arcventure I ... The Romans, age 8-12	SHER	£28
– primary site licence	SHER	£52
Arcventure II ... The Egyptians, age 8-10	SHER	£28
– primary site licence	SHER	£52
Arcventure III ... The Vikings, age 7-11	SHER	£28
– primary site licence	SHER	£52
Around the World in 80 Days, age 7-11	SHER	£37
ArtWorks	COMC	**£120**
ArtWorks network licence	COMC	£650
ArtWorks site licence	COMC	£540
ArtWorks Arranger Tool	COMC	£28
ArtWorks Made Easy	DABS	VO£15
ArtWorks Pressure Tool	COMC	£38
Asylum	DIGY	£8
AudioWorks	COMC	£45
Aztecs, age 7-11	SHER	£40
Badger Trails, age 9-11	SHER	£40
– primary site licence	SHER	£67
Battlechess	KRIS	£20
BBC Basic Reference Manual	ACOR	VO£25
Betsi, age 7-12	4MAT	£32
Betsi site licence, age 7-12	4MAT	£63
Big Picture	LONG	£POA
Birds of War (not Risc PC)	FOUR	£23
Birds of War for Risc PC	FOUR	£23
Bitfolio Cartoon Graphics	LOOK	£17
Black Angel	FOUR	£22
Blinds	QUAN	£16
Bodywise, age 9-14	SHER	£37
Break 147 & Superpool (not Risc PC)	FOUR	£22
Break 147 & Superpool for Risc PC	FOUR	£22
Burn 'Out	OREG	£20
Buttons	LIND	£24
C (new edition) with disc	DABS	£22
C++	ACOR	£211
CADet, KS3,4	MINE	£79
Calabash Pirates, age 7-11	STOR	POA
Cannon Fodder	KRIS	**£18**
CardShop	CLAR	£19
Carnage Inc. (not Risc PC)	FOUR	£18
Carnage Inc. for Risc PC	FOUR	£18
Castle of Dreams (not Risc PC), age 7-11	STOR	£20
Celebration	CLAR	£28
Celebration site licence	CLAR	£68
Chameleon (not Risc PC)	4MAT	£33
Chartwell	BEEB	£23
Chatter	4MAT	£30
ChessII	PILL	£14
Chocks Away Compendium	FOUR	£24
Chopper Force (not Risc PC)	FOUR	£21
Chopper Force for Risc PC	FOUR	£21
Chuck Rock (not Risc PC)	KRIS	**£9**
CineWorks	OREG	£129
Classcardz for Resultz	COLT	£20
Classcardz for Wordz	COLT	£20
Complete Animator	IOTA	£80
Composition (Risc PC only)	CLAR	£129
Compression	COMC	£29
Craftshop 1	4MAT	£19
Craftshop 2	4MAT	£19
Creator II	ALPI	£46
Crystal Maze, age 7+	SHER	**£17**
Crystal Rain Forest, age 8-11	SHER	£36
– primary site licence	SHER	£67
Cyber Chess	FOUR	£22
Darryl the Dragon, KS1,2	4MAT	£18
– site licence	4MAT	£36
– Activity Sheets	4MAT	£10
DataPower	IOTA	£123
DataPower site licence for >10	IOTA	£595
Demon's Lair	FOUR	£18
Desktop Thesaurus	BEEB	£18
Desktop Tracker	VTI	£39
Diggers		£24
Digital Symphony	OREG	£46
Digital Symphony + CD Rom	OREG	£59
Dinosaur Discovery, KS2	4MAT	£25
Dinosaur Discovery site licence	4MAT	£54
Disc Rescue	LOOK	£28
Don The Professor, KS2,3	SELE	£18
Draw Print & Plot	OAKS	£28
DrawBender	ICS	£10
DrawBender site licence	ICS	£30
!Draw_Help, age 13+	SHER	VO£16
Dune II	ECLI	**£27**
Dungeon (not Risc PC)	FOUR	£24
Dungeon for Risc PC	FOUR	£24
E-Type 2 (not Risc PC)	FOUR	£25
E-Type 2 for Risc PC	FOUR	£25
E-Type Compendium	FOUR	£18
EasiWriter	ICON	£87
EasiWriter Professional	ICON	£116
Easy C (not Risc PC)	BEEB	£55
Easy C++	BEEB	£89
EasyFont 3	FABI	**£27**
Eclipse Collection	ECLI	£20
Ego: Repton 4	SUPE	£18
Eidoscope	COMC	£157
Elite	HYBR	£32
Enter the Realm	FOUR	£18
Eureka 3, KS2,3	LONG	£91
Eureka 3 site licence, KS2,3	LONG	£374
Exotic Adventures of Sylvia Layne (not Risc PC)	FOUR	£18
Eye for Spelling, KS1,2	ESMO	£31
Fervour (not Risc PC)	CLAR	£16
Find It!	APPI	£34
Fireworkz	COLT	**£88**
Fireworkz Pro	COLT	£139
Fireworkz Pro primary site licence	COLT	£289
Fireworkz Pro secondary site licence	COLT	£585
First Logo, KS1,2	LONG	£21
– primary site licence, KS1,2	LONG	£70
First Page, KS2-4	LONG	£42
– primary site licence, KS2-4	LONG	£132
First Words with Smudge, age 4+	STOR	£20
Flashback, 1.6 Mb disc	USGO	£21
Flashback, 800 kb discs	USGO	£21
Flight Sim Tool kit	SIMI	£35
Flossy the Frog, KS1	4MAT	£23
– site licence, KS1	4MAT	£48
Flossy the Frog Art Disc	4MAT	£10
Font Directory	LOOK	£28
Fontasy	ICS	£15
Fontasy / DrawBender / Placard	ICS	**£30**
– site licence	ICS	£80
Fontasy site licence	ICS	£45
FontFX	DATS	£10
FontFX site licence	DATS	£70
Food for Thought, age 6-16	SHER	£16
Formulix	COMC	£64
Freddy Teddy	TOPO	£14
Fun School 3: age -5, age 5-7, age 8+ each	EURO	£18
Fun School 4: age -5, age 5-7, age 7-11 each	EURO	£18
Galactic Dan	FOUR	£15
Genesis Professional	OAKS	£112
Genesis Project	OAKS	£47
Global Effect	ECLI	£27
Gods (not Risc PC)	KRIS	£9
Granny's Garden	4MAT	£23
– site licence	4MAT	£48
– Resource Pack	4MAT	£15
Granny's Garden French (Le Jardin de Grand-mère)	4MAT	£23
GraphBox, KS3,4	MINE	£36
GraphBox Professional, KS4	MINE	£79
Graphics Loaders	COMC	£36
Graph_IT, age 8-16+	SHER	£19
GridPro (not Risc PC)	4MAT	£35
GridPro site licence (not Risc PC)	4MAT	£70
Grievous Bodily 'ARM (not Risc PC)	FOUR	£15
Hard Disc Companion II	BEEB	£44
Hatchback	4MAT	£32
Haunted House	FOUR	£20
Hearsay II	BEEB	£59
Heimdall	KRIS	£23
HeroQuest	KRIS	£22
Holed Out Compendium	FOUR	£18
Home Accounts	MINE	£27
House of Numbers	CHAL	£20
Illusionist	CLAR	£40
Image Animator	IOTA	£46
Image Outliner	IOTA	£46
ImageBank Picture Compression Library	IRLA	£26
ImageFS	ALTE	**£24**
ImageMaster	PILL	**£24**
Impression Publisher	COMC	**£123**
– network licence	COMC	£645
– site licence	COMC	£535
Impression Publisher Plus	COMC	£259
– network licence	COMC	£925
– site licence	COMC	£775
– as upgrade from Impression Publisher	COMC	£125
Impression Style	COMC	**£75**
– site licence	COMC	£435
Impressive	QUAN	£9
InterTalk	ACOR	£78
InterTalk site licence	ACOR	£295
Investigator III	VTI	£42
Investigator III + ArcFS 2	VTI	£62

POSTAGE IS FREE
FOR PREPAID SALES IN THE UK

James Pond (not Risc PC)	KRIS	**£9**
James Pond - Underwater Agent / Running Water, KS1-4	SKIL	£28
James Pond 2 + (not Risc PC)	ECLI	£17
Junior Database, KS1-3	IOTA	£45
Junior PinPoint, KS1,2	LONG	£25
– primary site licence	LONG	£83
Key Calc	ANGL	£59
Key Image	ANGL	£59
Key Plus 3.0	ANGL	£59
Keycount	ANGL	£32
Keynote 2.0	ANGL	£27
Keystroke	QUAN	£24
Kid Pix, KS1,2	ESMO	£34
Knowledge Organiser 2	CLAR	£63
Krisalis Collection (not Risc PC)	KRIS	£20
Landmarks, various titles, KS2,3	LONG	£24
Landmarks Datafile, various titles, KS2,3	LONG	£14
Landmarks Microworlds - The Victorians, KS2,3	LONG	£24
Landmarks Microworlds - The War Years, KS2,3	LONG	£24
Lemmings	KRIS	£19
Lemmings & Oh No! More Lemmings (Risc PC only)	KRIS	£22
Lemmings II (Tribes)	KRIS	**£20**
Little Red Riding Hood, age 5-8	SELE	£13
Logo, KS1-4	LONG	£55
– primary site licence	LONG	£188
Look! Hear! Talking Topics (set of 6), age 5-7	SHER	£55
Lotus Turbo Challenge 2 (not Risc PC)	KRIS	£18
MacFS	COMC	£85
MacFS Light	COMC	£45
Magic Pockets (not Risc PC)	RENE	£17
Magpie	LONG	£50
– primary site licence		£189
– secondary site licence		£328
Manchester United (not Risc PC)	KRIS	£9
Manchester United Europe (not Risc PC)	KRIS	£9
Master Break	SUPE	£13
Masterfile III	BEEB	£45
MathMania	TOPO	£24
Maths Card	CREA	£48
Maths Circus	4MAT	£25
Maths Explorer	COMT	£40
Maths Odyssey	COMT	£40
Mission: Control - Crystal Rain Forest 2, age 7-11	SHER	**£43**
Mouse in Holland	4MAT	£28
– site licence	4MAT	£55
Music Box	TOPO	£32
Music Studio 32	LONG	£POA
Musketeer (DataPower, Impression Style, Schema 2)	IOTA	£245
Musketeer Upgrade from Advance	IOTA	£198
Nature Graphics	MICS	£16
Naughty Stories Volume 1 (set of 6), age 5-7	SHER	£44
Naughty Stories Volume 2 (set of 6), age 5-7	SHER	£44
Navigator	TOPO	£42
Nebulus (not Risc PC)	KRIS	£17
NightSky	CLAR	£61
Noddy's Playtime (not Risc PC)	JUMP	£17
Noot (not Risc PC)	4MAT	£41
Noot site licence (not Risc PC)	4MAT	£88
Noot Art Disc	4MAT	£10
Notate, KS2-4+	LONG	£54
– primary site licence	LONG	£189
Oak PCB II	OAKS	£66
Oh No! More Lemmings (requires Lemmings)	KRIS	£15
OmniClient	ACOR	£245
Orrery	SPAC	£93
Ovation	BEEB	£66
Ovation Pro	BEEB	£POA
Oxford Reading Tree, age 5-7 :	SHER	
Stage 2 Story Books		VO£9
Stage 2 Talking Stories		£35
Stage 2 More Talking Stories A		£35
Stage 3 Story Books		VO£9
Stage 3 Talking Stories		£35
Stage 3 More Talking Stories A		£35
Oxford Talking Infant Atlas, KS1	SHER	£19
Pandora's Box (not Risc PC)	FOUR	£20
PCSoft 1.8	ACOR	£99
PenDown, KS1-3	LONG	£45
– primary site licence	LONG	£161
PenDown Etoiles, KS3,4	LONG	£49
PenDown Plus, KS2-4	LONG	£66
– primary site licence	LONG	£238
– secondary site licence	LONG	£395
Personal Accounts V3	APRI	**£37**
Perspectives	TECS	£54
Photodesk	SPAC	£157
PhotoTouch	OREG	£63
PicturePoint, KS1,2	LONG	£27
PicturePoint site licence, KS1,2	LONG	£89
PinPoint 2, KS3,4	LONG	£79
– primary site licence	LONG	£238
– secondary site licence	LONG	£370
PinPoint Datafile, various titles	LONG	£14
PipeDream 4	COLT	£85
Plantwise, age 9-14	SHER	£42
Playdays, age 3-8	SKIL	£21
Plot	CLAR	£63
Populous	KRIS	£23
Poster	4MAT	£74
Presenter GTi	LIND	£66
PrimeArt, KS1-4	MINE	£40
PrimeArt Display Kit, KS1-4	MINE	£20
PrimeMover, KS2-4	MINE	£56
PrimeSolver Full version, KS1-4	MINE	£49
PrimeSolver Home version, KS1-4	MINE	£36
PrimeWord, KS2-4	MINE	£39
Printer Driver Deskjet 500/550C	BEEB	£15
ProArtisan 2	CLAR	£102
ProArtisan 24 (Risc PC only)	CLAR	£125
ProCAD, KS4	MINE	£450
Prophet 2	APRI	**£143**
PublishArt Release 2, ArtWorks format	SMAR	£29
PublishArt Release 2, Draw format	SMAR	£29



Quest for Gold	KRIS	£19
QuicKey	ICS	£10
QuicKey site licence	ICS	£30
Rainbow, KS1,2	LONG	£28
Rainbow site licence, KS1,2	LONG	£89
Real McCoy 4	FOUR	£22
Recordz	COLT	£93
– primary site licence	COLT	£189
– secondary site licence	COLT	£385
RemoteFS Parallel Port	ATOW	£49
RemoteFS Serial Port	ATOW	£49
Render Bender 2	CLAR	£40
Rephorm	OAKS	£45
Report Writer KS1/2, KS1/2	CREA	£48
Report Writer KS3/4, KS3/4	CREA	£48
Repro	OAKS	£46
Resultz	COLT	£75
Resultz secondary site licence	COLT	£312
Revelation 2, KS2-4	LONG	£38
Revelation ImagePro 24 bit, KS2-4	LONG	£47
– secondary site licence	LONG	£328
Rhapsody 2	CLAR	£48
Rhapsody 3	CLAR	£74
Rhythm-Bed	CLAR	£38
RISC OS 3 Applications Upgrade	ACOR	£10
RISC OS 3 Programmer's Reference Manual vol 1-4	ACOR	V0£105
RISC OS 3 Programmer's Reference Manual vol 5	ACOR	V0£35
RISC OS 3 User Guide for Risc PC 600	ACOR	V0£25
RISC OS 3.1 Documentation	ACOR	£28
RISC OS Style Guide	ACOR	V0£14
Risc PC Technical Reference Manual	ACOR	V0£39
RiscBASIC Compiler	SILO	£77
Rosie and Jim: Duck loses his Quack, age 4-6	SHER	£10
Rosie and Jim: Jim gets the Sneezes, age 4-6	SHER	£10
Round the World Yacht Race, age 9+	STOR	£26
RTF and WordPerfect Loaders and Savers	COMC	£28
S-Base 2 Developer	LONG	£92
– site licence	LONG	£398
S-Base 2 Personal	LONG	£47
– site licence	LONG	£189
Sally and Wally	OREG	£20
Saloon Cars Deluxe	FOUR	£22
– Extra Courses	FOUR	£15
Schema 2	CLAR	£95
Science	MICS	£23
Scrabble	USGO	£21
ShapeFX	DATS	£10
Sibelius 6	SIBE	**£134**
– primary site licence	SIBE	£289
– secondary site licence	SIBE	£539
Sibelius 6 + Sibelius 7 Student	SIBE	£525
Sibelius 6 secondary site licence + Sibelius 7 Student	SIBE	£749
Sibelius 7	SIBE	£736
Sibelius 7 Student	SIBE	£464
– site licence	SIBE	£959
Sim City	KRIS	**£22**
Sim City 2000 for A5000	KRIS	**£30**
Sim City 2000 for Risc PC	KRIS	**£30**
Simon the Sorcerer	GAME	£28
Sleuth 2	BEEB	£93
smArt (not Risc PC)	4MAT	£33
smArtFiler	4MAT	£24
Smudge the Scientist, age 4+	STOR	POA
Smudge the Spaniel, age 4+	STOR	£19
– site licence, age 4+	STOR	£42
Snippet	4MAT	£32
SolidCAD	SILO	£77
Somerset Talking Computer Project Learning Materials	LONG	V0£29
Space City, age 7-9	SHER	£25
SparkFS	PILL	£20
Special	ICS	£10
Special site licence	ICS	£30
Speedball II	KRIS	£18
Spelling week-by-week	CHAL	£20
Spex+ Full version	ASPE	£38
Spex+ Home version	ASPE	**£33**
Split an Image, age 6-16	SHER	£17
Star Fighter 3000	FEDN	£23
Starspell Plus	FISH	£19
Studio24	PINE	£161
Stunt Racer 2000 (not Risc PC)	FOUR	£24
Stunt Racer 2000 for Risc PC	FOUR	£24
Stunt Racer 2000 Extra Tracks	FOUR	£16
Swiv (not Risc PC)	KRIS	£9
TableCalc	ISVP	£24
TABS	ASPE	£95
Talking Clocks	TOPO	£32
Talking PenDown, KS1-3	LONG	£53
– primary site licence	LONG	£189
Talking Textease	SOFE	£64
Technodream (Nevryon 2)	SUPE	£19
TechWriter Professional	ICON	**£191**
Termite Internet	DOGG	£POA
Textease Version 2	SOFE	£48
Time Detectives ... The Victorians, age 7-11	SHER	£42
Time Machine	FOUR	£19
Time Traveller, KS2	ESMO	£39
Time Traveller - Britain Since 1930, KS2	ESMO	£28
Time Traveller - The Victorians, KS2	ESMO	£30
Time Traveller - Tudor and Stuart Times, KS2	ESMO	£33
TinyDraw/TinyLogo	TOPO	£25
Titler	CLAR	£77
Topographer	CLAR	£59
Touch Type	IOTA	£38
– site licence for 10	IOTA	£137
Trace	PILL	£9
TurboDriver: Canon, Epson Stylus 800, HP	COMC	**£39**
Twain, various titles	PILL	£16
Tween	OAKS	£27
TWO (Task and Window Organiser)	ICS	£10
– site licence	ICS	£30
TypeStudio	BEEB	£38
Vector (not Risc PC)	4MAT	£58
Videopack, various titles	ANGL	£34
Virtual Golf	FOUR	£22
Vox Box	CLAR	£40
Voyage of Discovery, age 9-13	SHER	£31
WatchDog	BASE	£41
WatchPup	BASE	£12
Wavelength	GAME	£17
WimpGEN	SILO	£76
Wolfenstein 3D	POWE	£23
Wordz	COLT	£54
WorraCad	OAKS	£65
WorraCad site licence	OAKS	£275

Acorn Portables

A4 4M HD80 System	£1139
Pocket Book II 256K	£203
Pocket Book II 1MB	£284
Pocket Book II Class Pack	£1999
A-Link for Pocket Book	£44
Flash Disc 256K for Pocket Book	£48
Flash Disc 512K for Pocket Book	£79
Mains Adaptor for Pocket Book	£16
Parallel Link for Pocket Book	£28
RAM Disc 128K for Pocket Book	£44
Battery Pack for A4	£53



NEW Risc PC's

Risc PC600 **4M HD425** 14" Monitor		**£1145**
Risc PC600 4M HD425 17" Monitor	ACOR	£1425
Risc PC600 4M HD425CD 14" Monitor	ACOR	£1255
Risc PC600 4M HD425CD 17" Monitor	ACOR	£1535
Risc PC700 **5M HD425** 14" Monitor		**£1359**
Risc PC700 5M HD425 17" Monitor	ACOR	£1635
Risc PC700 5M HD425CD 14" Monitor	ACOR	£1469
Risc PC700 5M HD425CD 17" Monitor	ACOR	£1745
Risc PC700 **10M HD850** 14" M'tor		**£1689**
Risc PC700 10M HD850 17" Monitor	ACOR	£1969
Risc PC700 10M HD850CD 14" Monitor	ACOR	£1799
Risc PC700 10M HD850CD 17" Monitor	ACOR	£2079
486DX2/80 Card for Risc PC	ALEP	£398
486DX-40 Card for Risc PC	ALEP	£348
Case Mid Upgrade for Risc PC 600 2M and 5M	ACOR	£105
ColorMobile Scanner for Windows	PRIMAX	
– Direct model		£149
– Office model with Feeder		£199

NEW

- *Uses parallel printer port*
- *Scan width 105mm*
- *Up to 24 bit at 400 dpi*
- *Includes OCR and image manipulation software*
- *Requires PC 486 Card, 12 Mb ram, Windows 3.1*



Ethernet Network Interface Card for Risc PC & A7000	ACOR	£99
Hard Disc Fitting Kit for Risc PC 5¼" bay	ICS	£20
IDE Internal Interface	ICS	£60
IDE **Removable Hard Disc Kit** for Risc PC, **270Mb**	ICS	**£359**
Indigo CD Rom Drive CAA300i	CUMA	£124
Indigo CD Rom Drive CAA300iA	CUMA	£174
proTeus CD Rom / Optical Drive, Risc PC Internal	CUMA	£548
Removable Hard Disc Fitting Kit for Risc PC 5¼" bay	ICS	£20
Risc PC 486 Card, special offer if ordered with computer	ACOR	£99
Risc PC Sound Card	ACOR	£58
SCSI II Interface for Risc PC	CUMA	**£165**
SIMM 4 Mb 32 bit		£110
SIMM 8 Mb 32 bit		**£215**
SIMM 16 Mb 32 bit		£345

NEW Acorn A7000

A7000 2M NET	£889
A7000 2M HD425	£935
A7000 4M HD425	£1019
A7000 2M NETCD	£999
A7000 2M HD425CD	£1045
A7000 4M HD425CD	£1129
A7000 2M HD425 Early Years System	£979

Other Computers

A3010:	ACOR	
Early Years		£335
Early Years Med-Res SVGA Multiscan System		£499
Learning Curve		£335
Learning Curve Med-Res SVGA Multiscan System		£499
A3020 FD Med-Res SVGA Multiscan System	ACOR	£499
A4000 HD210		
High-Res SVGA Multiscan System	ACOR	£739
Med-Res SVGA Multiscan System	ACOR	£699

ICS Hard Disc Kits

NEW

The best IDE filing system is now available with a USER PORT – for only £5 extra

• Password protection • Disc partitioning •
• Not limited to 512 Mb •
Please specify OS 2 or OS 3 for all kits and interfaces



IDE Internal Hard Disc Kit for A3000 Series :	
80 Mb	£149
120 Mb	£185
170 Mb	£199
240 Mb	**£229**
Internal Interface only	£75
IDE Internal Hard Disc Kit for Archimedes Range :	
240 Mb In short supply – please check	£199
330 Mb In short supply – please check	£225
420 Mb	£275
540 Mb	£299
1000 Mb	£499
Internal Interface only	£60
Hard Disc Cradle Kit for Archimedes	£15
Hard Disc Fitting Kit for A3000	£7
Hard Disc Fitting Kit for A3020	£7

20 months to pay 0% FREE FINANCE! Call now for details

ICS IDE Hard Discs

IDE 2½" Hard Disc, 80 Mb	£89
IDE 2½" Hard Disc, 120 Mb	£125
IDE 2½" Hard Disc, 170 Mb	£139
IDE 2½" Hard Disc, 240 Mb	£169
IDE 3½" Hard Disc, 240 Mb	£149
IDE 3½" Hard Disc, 330 Mb	£175
IDE 3½" Hard Disc, 420 Mb	£225
IDE 3½" Hard Disc, 540 Mb	£249
IDE 3½" Hard Disc, 1000 Mb	£449
Form Factor Converter 2½" to 3½"	£7
Second Hard Disc Fitting Kit for A5000	£15
Second Hard Disc Y Power Lead	£7

Removable discs

IDE 3½ Removable Hard Disc Cartridge, 105 Mb	SYQE	£52
IDE 3½ Removable Hard Disc Cartridge, 270 Mb	SYQE	£55
IDE Removable Hard Disc Kit for A5000, 270 Mb	ICS	£359
Removable Hard Disc Fitting Kit for A5000	ICS	£25

Printers

A4-1200/1 Direct Drive Laser Printer	CALL	£978
Bubble Jet BJ-30	CANO	£159
Bubble Jet BJ-200ex	CANO	£179
Bubble Jet BJC-70	CANO	£245
Bubble Jet BJC-600E	CANO	£359
– Ink Cartridge, Black High Capacity	CANO	£12
– Ink Cartridge, Cyan	CANO	£10
– Ink Cartridge, Magenta	CANO	£10
– Ink Cartridge, Yellow	CANO	£10
Bubble Jet BJC-800 + TurboDriver		£1160
– Ink Cartridge, Black	CANO	£16
– Ink Cartridge, Cyan	CANO	£19
– Ink Cartridge, Magenta	CANO	£19
– Ink Cartridge, Yellow	CANO	£19
Bubble Jet BJC-4000	CANO	**£241**
– Ink Cartridge	CANO	£40
– Ink Cartridge, Black	CANO	£26
– Ink Tank, Black	CANO	£9
– Ink Tank, Colour	CANO	£15
DeskJet 500 Series Tri-chamber Colour Ink Cartridge	HEWL	£23
DeskJet Ink Cartridge, Black	HEWL	£21
EP-L Toner Cartridge for LBP-4	CANO	£59
EP-S II Toner Cartridge for LBP-8	CANO	£69

Memory

A3000 1 - 2 Mb, Non-upgradable	IFEL	£53
A3000 1 - 4 Mb	IFEL	**£110**
A3010 1 - 2 Mb	IFEL	£38
A3020 / A4000 2 - 4 Mb	IFEL	**£74**
A305/310 1 - 2 Mb	IFEL	£83
A305/310 1 - 4 Mb soldered with MEMC1A	IFEL	£173
A5000 2 - 4 Mb	IFEL	£79

Other hardware

486SLC-25 PC Card 25 MHz Bare	ALEP	£298
486SLC2/50 PC Card 50 MHz Bare	ALEP	£348
A305/310/440 RISC OS 3 Carrier Board	IFEL	£19
AnDi Oddule	BAIL	£49
Backplane, 4-slot 4-layer with fan	IFEL	£55
ColourCard Gold	COMC	£195
DMI 30	AUDI	£72
DMI 50	AUDI	£83
DMI 50 - S	AUDI	£159
Dongle Dangle	COMC	£6
Eagle M2	COMC	**£315**
Ergo-keyboard	CAST	£90
Fan Filters (pack of 10) (not A5000 or Risc PC)	ICS	£6
Fan Kit for A300 / A400	ICS	£15
Fine Grain SVGA Multiscan Monitor 17"	ACOR	£589
Lambda16	IRLA	£98
Lark A16	COMC	£195
Micro Mouse	CLAR	£21
Midi Max	COMC	£68
Movie Magic	COMC	£245
PD Cartridge, 650 Mb Rewritable	PANA	£38
Power Pad (Dual)	ECU	£25
Power Pad (Single)	ECU	£22
PowerWAVE 30	AUDI	£177
PowerWAVE 50	AUDI	£193
PowerWAVE 50 - S	AUDI	£242
proTeus CD Rom/Optical Drive, Acorn External	CUMA	£648
RISC OS 3 Bulk Software Upgrade Kit (set of 10)	ACOR	£338
RISC OS 3.1 3 Set Rom Pack	ACOR	£75
RISC OS 3.1 10 Set Rom Pack	ACOR	£249
RISC OS 3.1 Software Upgrade with documentation	ACOR	£67
RISC OS 3.1 Software Upgrade without documentation	ACOR	£39
ScanLight 256	COMC	£128
ScanLight 256 for A3000/3101/3020/A4000	COMC	£138
ScanLight Video 256	COMC	£188
ScanLight Video 256 A3000/A4000	COMC	£188
Sound Force 1 Multimedia Speaker System	QUIC	£34
TV Tuner	COMC	£88
TV Tuner with Teletext	CC	**£157**
User Port / MIDI Upgrade for A3000	ACOR	£51
Vision 24:	HCCS	
A3000 external		£91
A3000/3010/3020/4000 internal		£67
A5000/400/300/Risc PC		£67
Vision 24 508 line:	HCCS	
A3000 external		£117
A3000/3010/3020/4000 internal		£91
A5000/400/300/Risc PC		£91
Whisper Fan Quietener (for A300/A400 Series only)	ICS	£15
Wizzo5 for A5000	ICS	£39

ICS

0151-625 1006

ICS Bundle deals

Upgrade your A3010 — £185
- 1 - 2 Mb Memory Upgrade
- 80 Mb IDE Internal Hard Disc Kit

Educate your under 5's — £50
- Fun School 4
- Playdays
- Noddy's Playtime (not Risc PC)

Flatbed Colour Scanner — £595
- Canon IX4015 (requires SCSI)
- Twain Driver
- ImageMaster

Communications — £185
- 14.4K Modem
- Hearsay

Internet — £POA
- 14.4K Modem
- Termite Internet

Risc PC 'PC' System — £1620
- Risc PC700 5M HD425 14" Monitor
- Risc PC 486 Card
- SIMM 4 Mb 32 bit
- Windows for Workgroups 3.11

Sound for the Risc PC — £89
- Risc PC Sound Card
- Multimedia Speaker System

HOW TO ORDER

Carriage is free within mainland UK if you pay on ordering.

Cheques should be made payable to Ian Copestake Limited.

You may also pay by ***credit card***, ***debit card*** or ***Switch***. We normally make ***no charge*** for this, and take no payment until goods are despatched. We need your address as known to the card issuer.

If you leave an order on our ***answering machine*** please include your telephone number, your card number and its expiry date (and issue number if any), and your calculation of the total payment due.

Official orders are welcome from UK educational and government institutions (invoices are due for payment within 14 days and are subject to carriage and late payment charges).

VAT is not included. Zero-rated items are marked V0. UK customers please add 17½% to all other prices. EC customers outside the UK please do the same unless you are VAT-registered, in which case quote your international VAT number. Ours is GB 595 7258 84.

Overseas carriage: If you are paying by credit card we will add airmail and insurance at cost. Otherwise please add £6 (Europe) or at least £12 (elsewhere) for each software item and send a pounds sterling bank draft payable at a London clearing bank, or Eurocheques for not more than £100 each.

All products, prices and specifications are offered in good faith and are subject to availability and change without notice. Special offers apply only while stocks last. We process all orders immediately, but suppliers do sometimes keep us waiting. Goods are guaranteed but we do not supply them on approval. Returns and cancellations can only be accepted by prior agreement and there may be a charge to cover the costs involved.

ICS
0151-625 1006
Authorised Acorn Dealer and Developer
Cheques payable to Ian Copestake Limited please
Dept U22, 1 Kington road
West Kirby, WIRRAL
Merseyside, England, L48 5ET
Tel: 0151-625 1006
Fax: 0151-625 1007

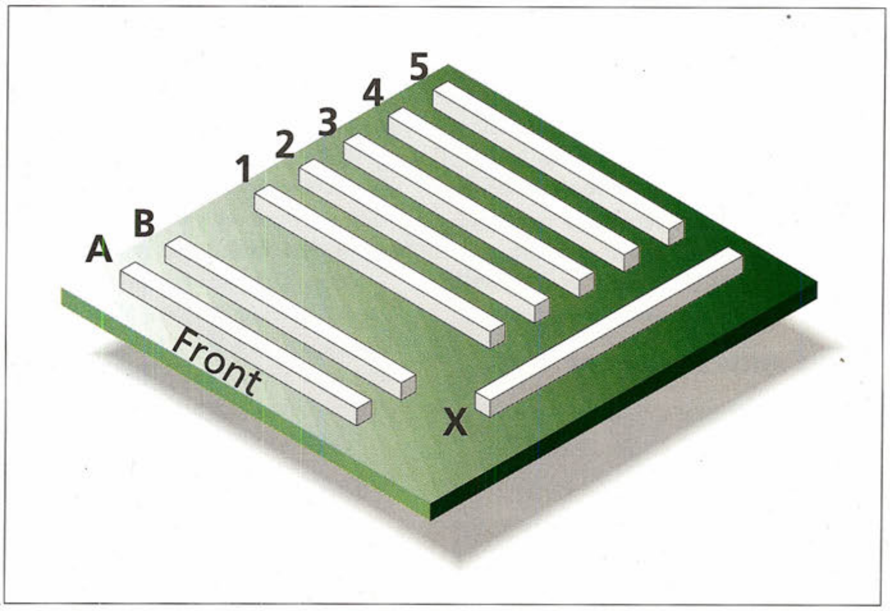
E&OE U22 95OC10

HURRY! FREE SOFTWARE AND SPECIAL CD-ROM PRICES WITH A4000'S UNTIL 30TH NOVEMBER!

Order from ... ICS (Ian Copestake Limited), 1 Kington road, West Kirby, WIRRAL, Merseyside, England, L48 5ET • Tel: +44 (0)151 625 1006 Fax: +44 (0)151 625 1007

News

Simtec multi-processor board arrives



A diagram of Simtec's multi-processor board for the Risc PC. Slots A and B exactly duplicate the two processor slots in the standard Risc PC; the board itself plugs into the front slot. Extra processors can be plugged into slots 2 – 5, with slot 1 reserved for possible on-board local SRAM. Slot X contains a card holding all the logic to drive the processors in tandem with each other.

SIMTEC Electronics has finally produced a set of working multi-processor boards for the Risc PC, albeit in very limited numbers at the moment. The boards can take up to five ARM processors – Aleph One's 486 co-processor will not yet work with the board – and plugs into the front processor slot of the Risc PC. As yet, there is effectively no software for the board – certainly no current RISC OS applications can use it, but Simtec is working on an Application Programmer's Interface (API) which should allow third parties to write software which uses the full power of the board without modifying existing software too much. A number of companies have shown an interest in using Simtec's board for dedicated applications such as fast graphics programming.

A test program running at Simtec's labs in Lancashire which did nothing more spectacular than increment the contents of a memory address, was shown running simultaneously in five processor cards and consequently running over four times faster than the program running in a single card. Tantric is known to be interested in making Taos work on the new board, but it is by no means the only option; Simtec is looking at other operating systems such as Helios as well.

Simtec has a history of innovative design, being the company behind the Turbo RAM upgrades for the A3010, A3020 and A4000 machines and the upgradeable SIMMs for the Risc PC. With its multi-processor board it opens up the possibility of super-fast Risc PCs, although it must be emphasised that the software to exploit it may be a while in coming. One of the slots on the board will be able to take a card containing fast SRAM (static RAM), allowing the processors to have access to an on-board memory cache and reducing the transfer load to the main memory of the machine.

One of the commendable features of the card is that the logic to control handshaking between the processors – the equivalent of the ASIC on the 486 co-processor – is handled by a separate card. This means that existing ARM610 and ARM710 cards will work in the board without modification because they don't need to carry their own on-board logic, keeping the cost of the complete system down. It is possible that Simtec will also produce its own ARM processor cards for the board.

No price has yet been set either for the board or the API, and the card is only available to interested developers at the moment. Nonetheless, it represents a significant step in the right direction for Acorn computers.

Simtec Electronics
Tel: (01772) 812863

Impression Publisher update

CYNICS may be surprised to hear that Computer Concepts has released an enhanced version of *Impression Publisher*. Computer Concepts' sister company, Xara Ltd, has just concluded a remarkable deal with the top drawing package company in the PC world (Corel Corp.) to market what might be described as the PC successor to *ArtWorks* (*Xara Studio*). However, CC hasn't yet washed its hands of the Acorn market completely.

CC's founder and managing director, Charles Moir, writes in the latest issue of CC's *Archimedean* customer newsletter that his company is not dropping the Acorn market, though it is clear that Acorn product development is declining in importance compared with the lucrative PC product side of the company and a new initiative into selling business access to the Internet. There is still demand for *TurboDrivers*, *Impression*, *ArtWorks* and of course the multimedia hardware upgrades. CC's subsidiary, Wild Vision, also works closely with Online Media, for example. Moir's explanation that *Xara Studio* can't be ported to RISC OS unless Acorn standardises its C compiler and class libraries, could be interpreted as: 'we'll do it when Acorn does' – but knowing whether that will ever happen is like guessing the lottery jackpot numbers.

As for *Impression*, the improvements in 4.06 aren't revolutionary, though the use of dynamic area memory in the Risc PC can substantially accelerate responses when editing large documents. Added features include smart quotes, conditional case-swapping and a selected region word count. Upgrades to registered owners cost £15 inc VAT.

Computer Concepts
Tel: (01442) 351000
Fax: (01442) 350010
WWW: http://www.xara.co.uk/

First Choice for Quality Software

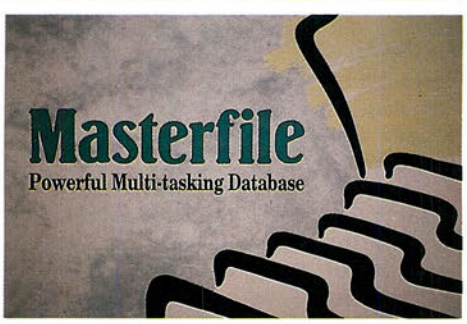
Sleuth 2

Optical Character Recognition

Sleuth 2 is a truly professional OCR system with superb features like auto page zoning, style recognition, fully integrated spelling checker and guided editing. Sleuth converts scanned images of printed material into ASCII files and can handle virtually all popular fonts in a wide range of styles achieving over 99% accuracy on good quality images. You will need 4Mb Ram and an Acorn-compatible scanner with a minimum resolution of 300 dpi. Sleuth can scan images directly using Twain drivers, which are available separately.

SLEUTH 2 Price £99 + £1.70 Carriage





Masterfile

General Purpose Database

Masterfile is a fast and flexible general purpose database providing powerful data management facilities suitable for business, education and home.
Masterfile is probably the easiest Acorn database package to setup and use! Its many features include a comprehensive indexing system, subsets which limit access to just those records which match search criteria, and a report generator which allows databases to be printed in a variety of card, spreadsheet or label formats.

MASTERFILE Price £49 + £1.70 Carriage

Easy C++

C++ Development System

Easy C++ is an excellent implementation of the in-vogue object oriented programming language C++. This implementation conforms to the latest Stroustrup text and supports both Templates and Exceptions. Unlike some other implementations, Easy C++ is not a C++ to C translator but compiles C++ source directly to ARM code making it quick and easy to use.
Easy C++ uses the much praised Easy C WIMP interface which allows programs to be compiled, linked and run at the click of a button. The package includes ANSI C and IOStream libraries, Make facility, integrated ARM assembler, source level debugger and also supports Throwback. The original highly acclaimed Easy C package is also still available.

EASY C++ Price £99 + £2.70 Carriage

EASY C Price £59 + £2.70 Carriage



TypeStudio

Flexible Font Effects

TypeStudio is the best selling font effects package that allows outline fonts to be manipulated to produce professional quality posters, banners, logos, letterheads etc. — the possibilities are endless.
Text may be flowed along straight or curved paths, or moulded into almost any shape. A wide range of interesting effects may then be applied to enhance the design further. These include: wall, floor and graduated shadow, 3D text, mirror, plinth, slant. You can use all of these effects on Draw files too! TypeStudio is intuitive to use, and unlike some other packages, paths and moulds may be created and edited using the drawing tools provided, so you can do all your design work using just the one package.

TYPESTUDIO Price £29 + £1.70 Carriage

Hearsay

Advanced Communications

Hearsay is the definitive general purpose communications package for Acorn systems, designed for easy communications for the first time user, but with advanced features making it also the professionals choice.
Hearsay provides high quality VT terminal emulations, and is ideal for use with Prestel, Campus 2000, Compuserve and virtually all bulletin board systems. Other features include: background file transfer, number directory, script language and support for popular modems.

HEARSAY Price £75 + £2.70 Carriage





Hard Disc Companion

Reliable Hard Disc Backup

Hard Disc Companion is the acclaimed package that provides a structured system for backing up hard drives to floppy discs and other devices.
It supports Full and Incremental backups with data compression. Files to be backed-up or ignored are chosen using simple drag operations. The backup specification may be saved in a script file for use at a later date.
In the event of disc failure or accidental file deletion, files may be retrieved using simple drag operations.

COMPANION Price £45 + £1.70 Carriage

BEEBUG

Beebug Ltd. 117 Hatfield Road, St. Albans, Herts. AL1 4JS Tel. 01727 840303 Fax. 01727 860263

Please add VAT to all prices. Telephone order hotline 01727 840305

Acorn paints clearer picture of its future

DAVID LEE, Acorn's new managing director, has been talking about the future for Acorn. It has been a hectic couple of months for Lee since he was drafted in to replace Sam Wauchope. Now he is confident enough to paint a candid picture of his aims for the company. Lee admits there has been a lot of bad news. Poor financial performance cost the company nearly 60 jobs, a human toll which has placed great strain on those left behind. However, he says he can still smile: 'I would not have moved from a comfortable job at Olivetti if I believed that Acorn has had its day,' Lee says.

The reduction of cost and renewed growth in revenue are Lee's primary goals. To achieve these aims, Lee has decided to give more responsibility to his new divisional directors, Mike O'Riordan at Acorn Education and Peter Bondar at ART (Applied Risc Technologies), and has freed up the decision making process. 'I think you will see I have a different role as a managing director – more hands-off. I will devolve more responsibility than my predecessor. We can't behave like a big company any more.' Lee added: 'Technology expertise within the company has not been exploited to the full and there was too much focus on the Desktop and education.'

Of course, education is still the core earner and Lee doesn't mean there will be less emphasis on it; however, through ART, there will hopefully be an avenue for pent-up expertise in ARM-based RISC technologies.

Lee said that O'Riordan's job at Acorn Education was to serve the market and customer needs better. This means Acorn will definitely start selling Acorn-branded PCs early in 1996 alongside the usual ARM-based Acorn range. O'Riordan confirmed that, while he had not yet signed a contract with a PC manufacturer, the schedule is to display the new Acorn PC family at BETT in January. The range will consist of high-end 486 and Pentium models, but not notebooks. O'Riordan was less definite regarding Mac clones; he reserves the right to go down the Mac route should the need arise, but the main target is the PC. In any case, Apple itself is facing severe difficulties in the education market.

Acorn will not make pots of gold by selling PCs. Gross margins in the PC market are half what Acorn enjoys with its proprietary products, which is good news for those who had feared Acorn would eventually drop its traditional ARM computer platform. Once again, the notion was expressed that Acorn PCs would act as a Trojan horse into non-Acorn schools. With schools able to deal for the first time with Acorn through its PC offering, Risc PCs and A7000s could be viable to those schools for the first time.

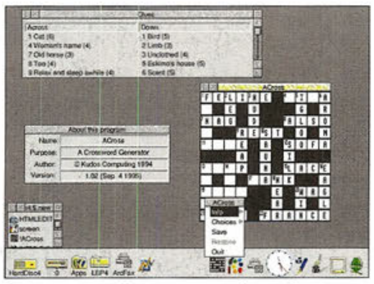
Acorn reminds us that it has worked hard to enable Acorns and PCs to sit happily on the same network, for example with the SchoolServer. O'Riordan even revealed that the head of one major Acorn-friendly education authority informed him as far back as January that the lack of a PC product line could eventually jeopardise the retention of RISC OS as a recommended platform for its schools.

Another revelation from O'Riordan is that he had been pushing for the freedom to introduce PCs for no less than three and half years. One point to mention is that O'Riordan is yet to be convinced that the consumer market, which his division is also tasked to address, should have access to Acorn-badged PCs.

Of future financial performance from Acorn, Lee warned that you can't expect an overnight transformation of Acorn's profitability. He admitted that the second half of 1995 was projected to make a loss, but he was expecting a return to the black by the second half of 1996. Meanwhile, Acorn's share price has actually risen in the wake of the bad financial results and news of restructuring. Lee suggests that much of this is attributed to Acorn's share in ARM Ltd plus optimism in Online Media. However, some of the share buoyancy can be attributed to Acorn's firm and swift action to restructure its business, Lee said.

Crosswords with Kudos

KUDOS Computing has announced a crossword generation program called *ACross*. Kudos explains that *ACross* differs from other crossword packages in that it is not specifically a crossword writing tool or a library of crossword puzzles. The program, via a dictionary of answers and clues and a pattern matching engine, creates random crossword puzzles at the click of a mouse button. Kudos is working on a choice of crossword dictionaries ranging in word size and clue difficulty. *ACross* is priced £24.99 inc VAT, with additional dictionaries priced £12 each.



Generate random crosswords with *ACross* from Kudos Computing.

Acorn pre-Christmas offers

Acorn is running a pre-Christmas promotion on certain lines. Examples include £100-off Cumana CD-ROM drives and free CD-ROM bundles, plus Acorn A3010 *Early Years* outfits for £150 off the RRP (though check out similar Beebug offers). Full details of the offers plus associated vouchers are contained in the new Acorn Education Products and Services Autumn brochure which has been distributed to 32,000 schools around the country.

Acorn Sales Office
(01223) 254214

Yellowstone products for Risc PCs

Luton-based Yellowstone Educational Solutions has announced a pair of hardware products for Risc PC owners: a fast ATA-2 IDE interface and an audio mixer board. Designed for Yellowstone by veteran Acorn hardware designer, Chris Honey, the new 32-bit RapIDE32 interface is claimed to be the fastest hard disc controller card available for the Risc PC. Four devices can be attached and RISC OS 3.60 filecore is supported. Performance is said to be 2.2 times faster than the standard Risc PC IDE interface. The interface is priced £119 + VAT and Yellowstone may be offering a range of matched fast IDE drives too. 6x-speed CD-ROM drives have also just become available for the RapIDE32 interface.

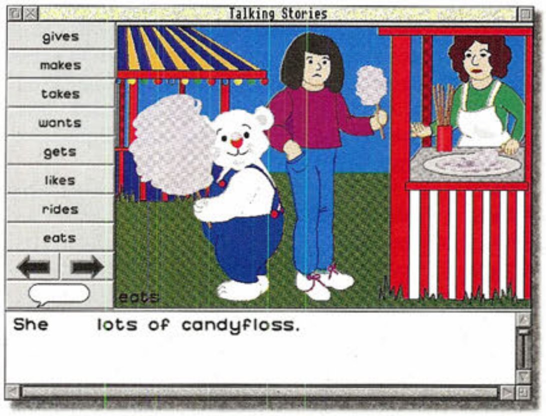
The second new item from Yellowstone is an internal audio mixer to combine stereo sound from an internal source, like a CD drive, with the existing computer-generated sound channels. Leads for most make of CD-ROM drive are available. Yellowstone's Audio Mixer is priced £29 + VAT.

Yellowstone Educational Solutions
Tel: (01582) 584828
Fax: (01582) 56225

Wyddfa at Acorn World

Celebrating its third birthday at Acorn World, Wyddfa Software, which specialises in educational software for youngsters, will be announcing new products there. French and German versions of *The Spoken Word* Keystage 1 language package are to be debuted at the show alongside the original Welsh and English versions. Wyddfa will be showing the Welsh version of *Talking Stories*, as well as *StoryMaker* for users to create their own stories. Another Wyddfa product which uses speech technology is *Talking Calculator* for developing number skills.

Wyddfa Software
Tel: (01286) 870101
Fax: (01286) 871722



Wyddfa's *Talking Stories* will shortly be available in Welsh.

Acorn User diary

Date	Event	Venue	Contact
27 – 29 Oct	Acorn World '95	Wembley Exhibition Hall 1	Ticket hotline: (01933) 441448
9 Nov	SARC Christmas Games Event	Ipswich	Paul Skirrow: (01473) 728943
12 Nov	Selective Computer Show	Kegworth Hotel	Selective Computer Services, tel/fax: (01332) 690691
24 Nov	Resource 95 IT Show	Doncaster Racecourse Exhibition Centre	Resource: (00509) 672222
3 Dec	Beebug Open Day	Beebug, St Albans	Beebug: (01727) 840303
10 – 13 Jan	BETT '96	National Hall, Olympia	Ticket hotline: 0181-984 7711
7 – 9 Mar	The Education Show	Halls 11 & 12, NEC	Ticket hotline: 0171-984 7711

New PC Link package

Acorn has announced PC Link+ replacing the original AHA36 PC Link product. The serial port-based PC Link+ comes with a new file transfer utility for Microsoft Windows. This has a Windows-based file manager and converter for easier document transfer to PC files from word processors, spreadsheets and personal information managers. Also included is a Windows version of the *Cards* database, access to printers even on a PC network and a simplified one-click Pocket Book data backup function.

PC Link+ is priced £79.95 inc. VAT (Order Code AHA50) User of the old AHA36 PC Link package can upgrade to the new software version by ordering the *PsiWin* upgrade, priced £39.95 inc. VAT, direct from Psion.

Psion Customer Services
Tel: 0171-258 7368

Curriculum learning products

ANOTHER new source of educational software has been created in the form of Curriculum Learning Products (CLP) in Durham. CLP acts as a distributor of educational software and related products. Three new products launch CLP: the first of which is *MiniSheet*, a spreadsheet package for young users. *MiniSheet* has large colourful icons, easy table data handling and all the usual accessories like charts and exporting to DTP packages. *MiniSheet* is priced £30 + VAT, which includes a site licence. Next up is *LibSearch*, a book database for keeping track of the books stored in a classroom. Not only can you enter information about each book in your library for later searches, but the software can be used to keep stock of your collection. The software is designed for use by Key Stage 1 pupils and above. *LibSearch* is priced £15 + VAT, which includes a site licence. Finally, CLP can supply a range of models to support the new National Curriculum requirements for control technology.

Curriculum Learning Products
Tel/Fax: 0191-373 225

Beebug's last chance £140 A3010

BEEBUG is warning that it definitely won't be able to repeat its latest offer of an A3010 computer for £140 + VAT. Its last A3010 offer saw 800 units sold in less than two months. As they point out, the price is less than half that of a Pocket Book II with 512K RAM. No monitor is supplied, but if you have a spare TV, the standard TV modulator can be used. The standard A3010 only comes with 1Mb RAM, but even when you add a second megabyte of RAM and an 80Mb hard drive, the cost is still only £325 + VAT.

An 80Mb hard drive and 2Mb RAM may sound minimalistic, but RISC OS works quite comfortably within this specification. For just £85 above the 2Mb upgrade option, you can go for 4Mb RAM. Beebug has also put together some software bundles, the *Home Office Pack* for £80 + VAT and the *Home Professional Pack* for £35 + VAT. The former includes the PC Emulator for running DOS applications.

Beebug
Tel: (017272) 840303, Fax: (017272) 860263
E-mail: sales@beebug.co.uk

More on Tornado

WE'VE already covered *Tornado*, the 'add-on' alternative operating system for RISC OS being developed by an independent team headed by Niall Douglas. *Tornado* promises to bring RISC OS bang up to date with a whole library of new features. As we understand it, *Tornado* is still some way off from being demonstrated, however, Douglas has now issued an updated document, rather in the style of a personalised white paper, which outlines what *Tornado* sets out to achieve. Here are a few excerpts from it:

'...more than likely Acorn will adopt a proprietary multiprocessor system based loosely around Taos, and will rewrite RISC OS to run on it. This RISC OS that we see may be considerably different to the one we know today. For a start, it probably will implement multitasking in the kernel ... in fact, a lot of RISC OS may be changed to function like other operating systems, probably based a lot on UNIX.

Douglas predicts that *Tornado* will be able to run on a multi-processor Acorn computer, with some of these benefits:

'*Tornado* adds standard facilities for OLE, hotlinking, external editing and multiple viewing.' Douglas describes the basic detail of a system-wide architecture with comprehensive inter-application communication. *Tornado* also manages application data, preserving it even when the application crashes.

Multi-tasking will also be radically different under *Tornado*: 'All programs are pre-empted under the *Tornado* multi-tasker, which runs alongside the RISC OS multi-tasker. Printing and *all* disc I/O under *Tornado* multi-tasks and sub-tasking is available to have heavy processing done by *Tornado* and not by your task. An incredible difference shows when programs are written properly – the Desktop becomes fluid, and tasking does not halt momentarily.'

A 'visual' programming environment, with drag and drop object construction, is envisaged for *Tornado* and programs will be able to combine C, Assembler and even BASIC routines.

Tornado will do lots of things on the fly: 'Dragging a GIF file into a *Tornado* program which can only understand sprites starts up one of a set of specialised subtasks, which converts the GIF into a sprite, and when saved will convert it back again. Also, *Tornado* provides renderers, which will render files in their native format for the application.'

Ease of application building is a primary goal: 'I would think that when writers get a hold of the visual editor, *Tornado* will soar off, simply because in comparison to RISC OS, there simply is nothing like it. *ResEd* is very clever, but it simply can't bypass the inherent restrictions the WIMP places on tasks running under it. It also doesn't allow BASIC to be used in code, and as the amount of programs out there that are written in this language shows, there is still quite a bunch of people who want to use it.'

More extensive information on *Tornado* is stored at micros.hensa.ac.uk (search for '*Tornado*' in the Acorn section). Douglas can be contacted at: ndouglas@digibank.demon.co.uk – but the last story we printed on the subject caused his mail box to be severely overloaded, so please go easy on the e-mail.

New software from CCS

CREATIVE Curriculum Software (CCS) has announced a collection of new education software titles which will be officially launched at Acorn World. The first is *Language Master* (£45 + VAT), which is an extension of the concept first developed in *Spelling Book*, which itself continues as a separate product. *Language Master* provides instant access to a database of customised words and phrases and can be used within word processors and DTP packages. English, French, German and Spanish language support is selectable.

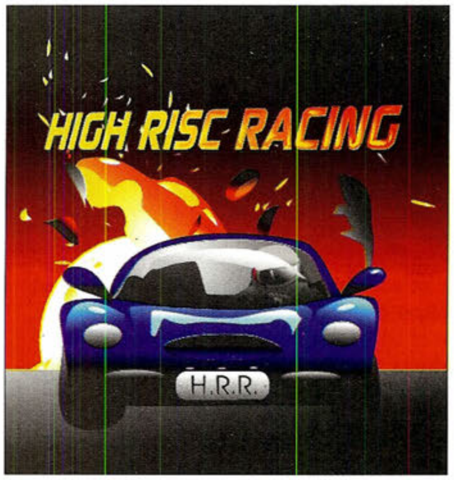
A new version of *Report Writer* (£39 + VAT), for generating student school reports, has been developed to cater for the new National Curriculum. *Easimenu* (£14.95 + VAT, £10 inc VAT at the show) is a new utility for setting up hard drives and RISC OS computers with the minimum of complexity. *Easimenu* is aimed particularly at primary schools and will work on a network too. *Magic Maths* (£25.49 + VAT) is a new application for exercising mental arithmetic skills.

Whether or not the next offering qualifies as an educational title is a moot point – it's *The Patience Addict*, a collection of 20 classic games of Patience varying in difficulty. The list price for *The Patience Addict* is £12.73 + VAT but at Acorn World it will be available for £10 inc VAT. Finally, there is *Mechanisms* (£69 + VAT), a CD-ROM which provides graphical demonstration of the link between theory and practice in technology, maths and physics. For Acorn World only, *Mechanisms* is priced at just £19 + VAT. All products are available with site licence options.

Creative Curriculum Software
Tel: (01422) 340524
Fax: (01422) 346388

Modus on-line

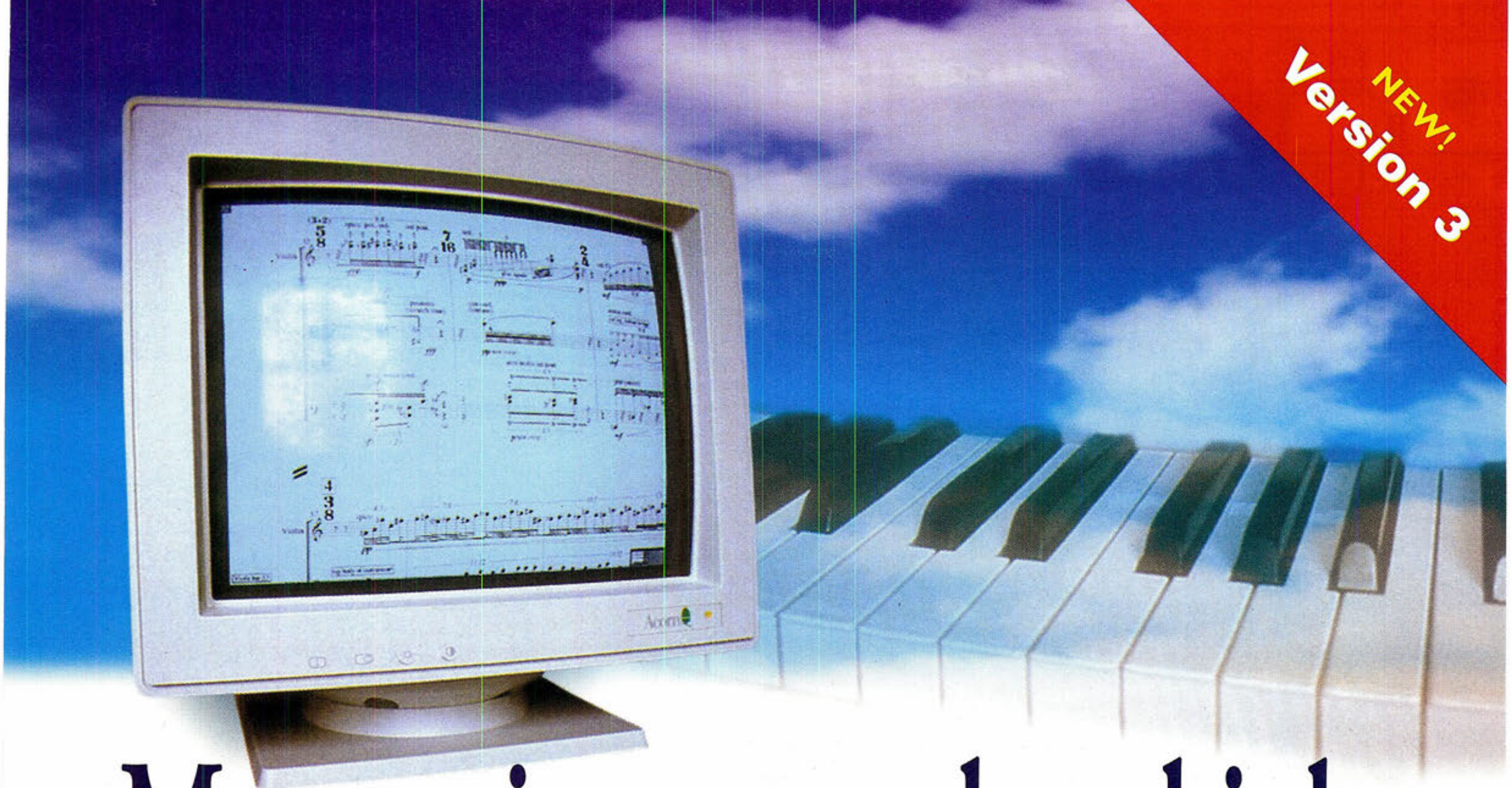
ACORN games house Modus Software has announced that it is to have a presence on the Digital Databank bulletin board, which is dedicated to all things Acorn. The Modus area on the Digital Databank will offer downloadable graphics and demos as well as provide live access to Modus's programmers. Modus's claim to fame is its game *High Risc Racer* and a new improved demo version of the game will be released to the public via the bulletin board. Digital Databank users will also qualify for a 10 per cent discount on Modus Software purchases.



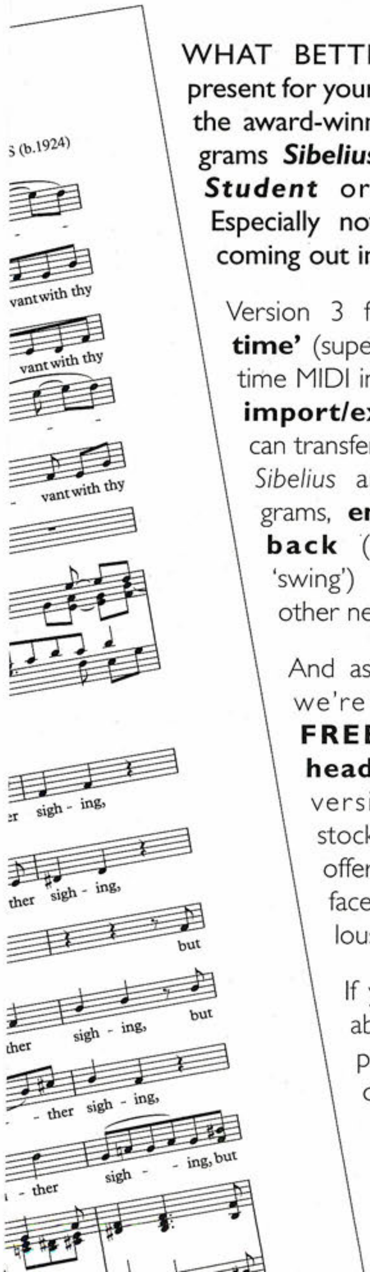
High Risc Racing from Modus Software – you've seen the screenshots, now download the demo.

Digital Databank, operated by John Stonier in Welwyn Garden City, has four modem access lines on these numbers: (01707) 329306/323531. The first number operates up to 28.8Kbps and the second up to 14.4Kbps.

Modus Software
Tel: (01236) 722202
e-mail: modus@digibank.demon.co.uk



Manuscript paper that thinks.



Piece for choir and piano, laser printed using Sibelius 6

WHAT BETTER Christmas present for yourself than one of the award-winning music programs ***Sibelius 6***, ***Sibelius 7 Student*** or ***Sibelius 7***? Especially now that they're coming out in **Version 3**.

Version 3 features **'Flexi-time'** (super-intelligent real-time MIDI input), **MIDI file import/export** so you can transfer music between *Sibelius* and other programs, **enhanced playback** (such as jazz 'swing') and numerous other new features.

And as a special offer we're giving away **FREE CD-1000 headphones** with version 3 (while stocks last) – and offering MIDI interfaces for a ridiculous **£39**+VAT*.

If you don't know about the *Sibelius* programs already, over the last two years they've received major reviews in *The Times*, *Independent*, *Sunday Times*, *New Scientist*, *Daily Telegraph*, *Financial Times* and even the *South China Morning Post*... been seen by 100 million TV viewers worldwide... played the piano in a major London concert... received numerous awards... and become the UK industry standard for music publishing.

Sibelius 6 (£179+VAT) does everything most people need – all standard notation for up to 16 instruments and 512 bars. *Sibelius 7 Student* (£495+VAT) has advanced features for more complex music such as orchestral scores.

Sibelius 7, the full professional program (£888+VAT), is now the UK music publishing industry standard – used by the **BBC**, the **Royal Academy of Music** and other conservatoires, publishers including **Faber Music** and **Music Sales** (Europe's biggest music publisher), and leading composers such as **John Rutter** and **Malcolm Williamson** (Master of the Queen's Music).

"Dramatically reduces the time it takes to compose a piece of music"
– *Financial Times*

"In a totally different league from anything else"
– *Paul Patterson (Professor of Composition), Royal Academy of Music*

"Far more powerful and sophisticated than any other score-writer"
– *Personal Computer World*

"*Sibelius* feels as if it has musical instincts"
– *The Independent*

"By far the best notation software I've seen... I cannot recommend *Sibelius* strongly enough"
– *YES magazine*

"Could become an international standard"
– *Sunday Times*

"*Sibelius* is so sophisticated that it could make a piano perform dazzling feats far beyond the reach of any human hands"
– *The Times*

Please send me a complete information pack about the Sibelius programs.

Name: ____________________

Address: ____________________

____

____

Postcode: __________

Tel: __________ *AU 12.95*

Cut out coupon, fill in and post to:

Sibelius Software
FREEPOST CB344
CAMBRIDGE CB1 1BR
(no stamp needed from UK),
or contact us on:
Tel: 01223 302765
Fax: 01223 351947
email: info@sibelius.demon.co.uk

**For A3000, A3010, A3020 & A4000 – other models £69+VAT*

Prices exclude VAT and delivery. Details and prices may change. All trademarks acknowledged. E&OE



Virus Protection Scheme

The Pineapple Software Virus Protection Scheme provides the most comprehensive protection available against computer viruses. !Killer together with VProtect will detect and remove all of the currently known 75 families of virus (over 100 viruses in total). Because new viruses are being discovered all the time our virus protection scheme will provide you with 3-4 updates of the software each year. We can also offer immediate advice by 'phone. !Killer can scan any filing system or device including floppies, harddiscs, networks, even CDRoms. All types of compressed file can also be scanned. All infected files are fully restored without having to reload from master discs or backups.

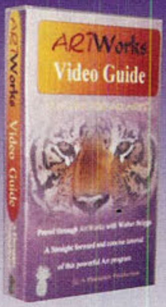


Don't wait until you discover you have a virus! Use the software that Acorn themselves use to check for viruses.

A years subscription costs just £28.20 inc vat

Low cost school and county licences available

ArtWorks Video Tutorial



A BRand new product from Pineapple is this VHS Video Tutorial covering the use of ArtWorks. Walter Briggs is the tutor for this 1 hour video which shows how to use all the ArtWorks tools and then goes on to show how Walter produced his famous Tuger head picture. Wlater also draws an impressive landscape picture which can be copied by those with no artistic talent at all!

ArtWorks VHS Video Tutorial £19.99 inc vat

A4 Colour Scanners



New from Pineapple the superb IX-4015 A4 flatbed Canon colour scanner. Supplied with Imagemaster and Twain software this scanner makes the perfect companion for our Studio24 re-touching software. With a basic resolution of 400 x 800 dpi this scanner is unbeatable value.

IX4015 with Imagemaster & Twain	**£675.00**
As above + Studio24Pro	**£769.00**
SCSI interface + cable	**'phone**

Epson Colour Scanners

Also supplied with ImageMaster and Twain software these models can work on either SCSI systems or via the Parallel Port. Basic resolution of GT8500 is 400dpi and the GT9000 is 600dpi

GT-8500	**£599.00**	**GT-9000**	**£733.00**

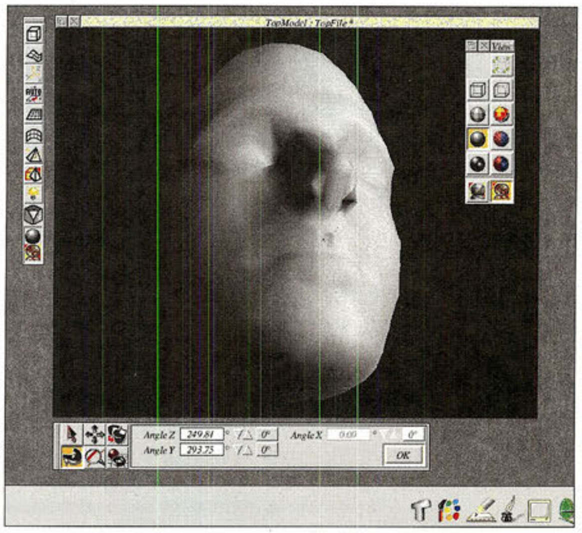
Pineapple Software
Suites 13 & 14
South Park Business Centre
310 Green Lane, Ilford
Essex IG1 1XT
Tel 0181 599 1476 Fax 0181 598 2343
email: sales@pineapple.demon.co.uk

Terms:- All prices *include* 17.5% vat. Carriage FREE to mainland U.K. Phone for quote outside U.K. Official orders, cheques and all major credit cards accepted. Money back guarantee on all products.

For demonstrations of most of our advertised products why not come and visit us in our new offices (easy parking) where you can see most of the Acorn range of computers and other hardware in action.

Graphics

The Acorn's fastest 3D modeller



Entirely created in *Top Model*, this face is rendered with perspective at approximately four redraws per second.

WHEN is an Acorn an Indy? When it's running the magically fast *Top Model* 3D modelling software from the Italian group, Sincronia Soluzioni Multimediali. *Top Model* arrived on my desk only days after last month's featured graphics package, *Merlin*, emerged in its first 'officialish' guise.

I've been playing around on the former for several weeks now, exploring the hidden depths of this remarkably well-equipped modeller which features extremely advanced modelling tools only previously seen in packages like *Autodesk, 3D Studio, Alias* and *Renderman*.

But just for a moment forget all the things it does because, to use a car analogy, it is no good having full leather interior, a megawatt stereo and air conditioning if the thing has a lawnmower engine under the bonnet. What I'm trying to point out is the futility of a package with all the features you could ever dream of and more if all the functions take longer than a tortoise marathon to execute.

Top Model is a little different from your average modelling package, because it makes all modelling packages seem appalling slow. On a Risc PC it is so quick at redrawing and zooming even the most complicated textured and illuminated models that an Acorn software programmer to whom I demonstrated the program could only exclaim ... words that could not be repeated in this family publication.

Someone else commented that it was faster than his 120MHz Pentium running *3D Studio*. Even at this beta stage I can safely say that *Top Model* is incredibly fast and packed with plenty of exotic modelling wizardry, though without a maths co-processor its speed cannot match Reality Labs rendering technology on the PC just yet.

The programmers are serious about development, with plans for top end features for the package such as professional-quality raytracing and broadcast-quality animation, provided that two criteria are met. The first is that the Acorn platform must deliver the raw processing power that it has promised, and the second is that enough people buy the basic version of *Top Model*.

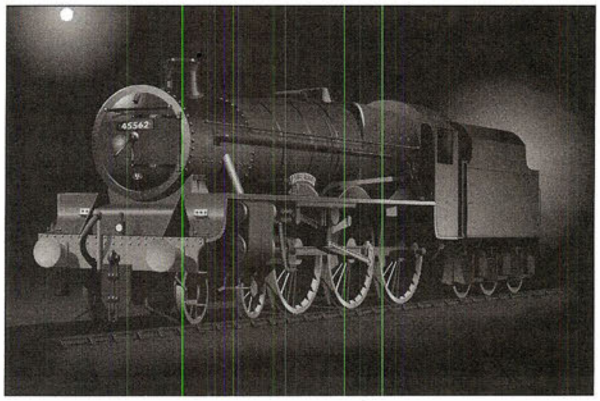
So when it goes on sale, buy it. This could easily become the *Sibelius* of graphics software. If you need convincing, we hope to have a demo on the cover disc shortly. For details on prices and further information about the *Top Model* software project call Paulo Rossi, who speaks better English than I do.

Sincronia Soluzioni Multimedia
Tel: +49 27 61 30 62

Pic of the month

IN his own words, Doug Claw – creator of this moody monochrome locomotive picture – is 'not one of those very talented young people' who feature regularly on the graphics page. I would agree that at 64 years old Doug is certainly not the youngest winner of Pic of the Month, but he is surely one of the most talented judging from this *ArtWorks* image produced on a Risc PC.

£20 and a free slide recording from Digital Darkroom (call 0181-311 2001) is the lottery-shaming, one and only Pic of the Month jackpot.



Keep 'em coming

If you are one of the entrants to the graphics page competition (to all of whom I have enormous gratitude for sending in your piccies) who has never won, do not despair; there is another bumper CD-ROM cover disc in the near pipeline and we will be featuring every single pic of the month entry that we can in order to showcase Acorn artistry.

Send in all your pictures as soon as possible; we will do our best to return the discs to you if you include a SAE. If you prefer you can e-mail your entries. Please let us know if you would prefer your entry *not* to go on the CD-ROM, and tell us the details of how you created your masterpiece.

Just imagine having all your artwork immortalised by us on an *Acorn User* cover CD-ROM.

New e-mail address

Just like so many others, I have been nabbed by the ArgoNet bug and my e-mail has changed. My address is now simply jack@argo.co.uk so, if you're on e-mail, try dropping me a line. Mail sent to jack@acornusr.demon.co.uk will be automatically forwarded. With the *Acorn User* WWW pages ever-growing, I need suggestions for an on-line set of Graphics pages. Can you help?

Corel buys Xara

Well what can you say? Writing word processors for the Beeb one minute: sealing deals with one of the world's largest software manufacturers the next. Computer Concepts, having finished the ground-breaking *Xara Studio*, have had the rights to market the program bought for an undisclosed figure by Corel. Well done to the team at CC.

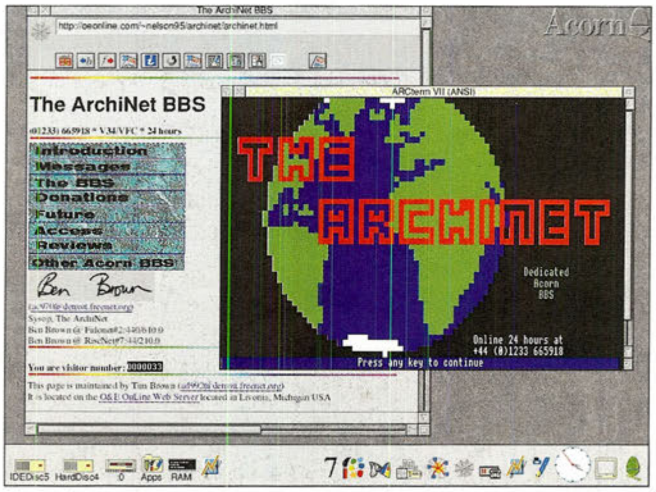
Contacting me

You can contact the Graphics page by writing to me, Jack Kreindler, at Acorn User, IDG Media, Media House, Adlington Park, Macclesfield SK10 4NP, or by e-mail to: jack@argo.co.uk.

ArchiNet BBS spins first Web

THE ArchiNet BBS run by Ben Brown is one of the first Acorn bulletin boards to have its own World Wide Web site. With appropriately world-wide resources, the BBS is located in the United Kingdom, in Ashford, Kent, while the Web pages are fetched from a server in Livonia, Michigan USA.

The Web knows no bounds though, and Ben's ArchiNet pages are as easily accessed with a Web browser as the BBS system is by dialling the BBS direct with an ANSI terminal. The BBS screens and the Web pages are separately maintained and operated, so are not linked in real-time.



The ArchiNet BBS is now accessible over the World Wide Web.

ArchiNet runs on a Risc PC 600 with 12Mb of memory, 540Mb and 1275Mb hard drives, and a dual-speed CD-ROM drive. The BBS has a dedicated phone line connected to a USR Sportster 14400bps modem for 24 hour access. Ben Brown is the author of *FidoArm*, an add-on program for *ArmBBS* that enhances the BBS software to add Fidonet messaging ability, and many other *ArmBBS* sysops have been using it successfully.

Thanks to *FidoArm*, the ArchiNet BBS is linked both to Fidonet and the RiscNet alternative Acorn-interest BBS network, which duplicates many of the special interest message areas that have become established on Fidonet. ArchiNet carries these Acorn message areas as well as those on Grand Prix motor racing and Rock and Metal music.

Over 60 file subject areas contain about 200Mb of files available to ArchiNet users at the time of writing. Users who register with ArchiNet and offer a small donation towards running costs are given full access to the system. Running a BBS is not without ongoing expenses – the rental on a single telephone line is over £100 per year.

The ArchiNet BBS
Fidonet#2:440/610.0
RiscNet#7:44/210.0
Modem: (01233) 665918

The incredible shrinking Internet

WHILE the Internet has been evolving from a military defence communications system in the 1970s, adding academic and educational networks in the '80s to today's still expanding personal and increasingly commercial worldwide digital data exchange medium of the '90s, the number of users of these services is now rapidly reaching the current design limit.

At the moment, most Internet account holders are allocated a unique machine address, which is stated as a 32-bit number called the IP address. This identifies the actual machine being used, and the sub-network of which it forms a part. It's divided into four parts for human readability. For instance, the Arcade BBS Demon IP address is 158.152.17.41. A 32-bit number allows over four billion combinations, but many addresses were allocated rather wastefully in the early days so that whole blocks of addresses could refer to a single machine, and many other blocks have already been reserved.

So incredibly, there will soon not be enough addresses to go round. The way forward is a new proposed standard called the Next Generation Internet Protocol – IPng.

The IPng proposal increases the number of bits in the address space to 128, which is four times the 32 bits used previously. This works out at 340,282,366,920,938,463,463,374,607,431,768,211,456 addresses. Allowing for correlation with existing addressing systems, it has been estimated that this would provide 3,911,873,538,269,506,102 addresses for every square metre of the Earth's surface.

The future of Internet working lies not only with computing, but with networked entertainment with hundreds more TV channels, video on demand, and also with wireless networks, such as cellular phones, pagers, and personal organisers. Household equipment, such as lighting, heating and cooling systems are simple to control, and are ideal to become networked and addressable.

So in the future you'll probably be able to phone your house from work, order up an old film to watch when you get home, and turn on your porch light without turning on everyone else's.

Demon ROMPs home

Demon Internet has announced details of its countrywide local call rate access to the Internet. The whole of the UK is now covered by using Regionally Organised Modem Pools (ROMPs) provided by both Energis and Mercury, and an 0645 number for customers in certain specified areas not otherwise locally served. You can get full details from this web page: *http://www.demon.co.uk/dil/pops.html*

Demon Internet Ltd
Tel: 0181-371 1234

Arctic RISC

Steve Pursey of Arctic BBS in West London has taken advantage of Acorn's 20/20 interest free credit scheme and upgraded the BBS to a Risc PC 700. Arctic runs USR modems, and the Fidonet line now supports all speeds to V.34+ (33600bps).

Arctic BBS
Modem: 0181-903 1308/1309

Rocket takes off

James Sears tells me of Rocket Gold BBS, his new *ArmBBS* system located in Pitton, Wiltshire. Running on an A3010, the BBS is online 24 hours and will support speeds to 14400bps. As well as Acorn interest areas which include clip art and Acorn programming, Rocket Gold has areas for Amiga and IBM PC users, and for industry standards such as PostScript, CSV and MPEG. *Star Trek*, *Babylon 5* and *X-Files* fans will find friends on Rocket too.

Rocket Gold BBS
Modem: (01722) 712422

Contacting me

You can contact the Comms page by writing to David Dade, Acorn User, IDG Media, Media House, Adlington Park, Macclesfield, SK10 4NP, or by e-mail to: DaviD@arcade.demon.co.uk, or mail #2 on Arcade BBS 0181-654 2212.



A modest proposal

THE last document to go under the knife in our makeovers is a report-style proposal. It comes from an estate in Manchester that's bidding for extra funding from the local Council.

Stan Pargeter, the local tenants' association chairman, had received a fairly poor document from a unit within the local housing office.

The A4 report had several nearly empty pages with overly large text designed to make them look full, a number of charts (placed on the page sideways with simple outlines and text), a couple of typed pages, and two pages of photographs that had been stuck onto a page and photocopied. This was not really the impression Stan wanted to give to the local councillors and town hall officials. It struck me as an ideal opportunity to examine some report-type concepts.

A report outline was added and the conclusions page was moved from page two to page twenty, giving the report a sequential structure.

A large sideways-mounted heading bar was chosen because all the headings were almost long enough to fill the page, and it made excellent use of the thumb space.

A logo for the tenants' association and the local housing department were included at the bottom and a reversed page number set into the top right of the page.

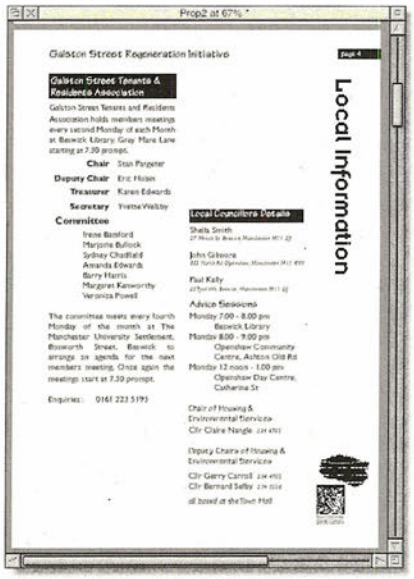
Three fonts were used: Gill Sans for the main body text, Insignia for the side mounted headings, and Architect for sub-headings as well as notes for the diagrams and maps.

All three fonts are conspicuously modern and the Architect font worked well on the maps and charts that were included. A bold, reversed version of Architect was also used in various sub headings.

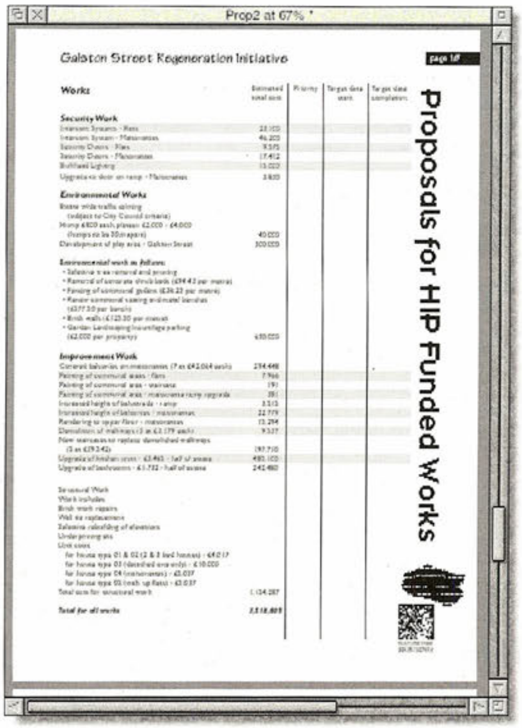
The report was heat seal/slide bound so an extra 10mm gutter was added to the left-hand edge of the page to prevent text slipping into the curve created at the bound edge; all the pages were right-handed.

Seven guide columns were used, with the outside one containing the side-mounted headings and logos. Each page either used all six of the remaining columns or used two sets of three guide columns.

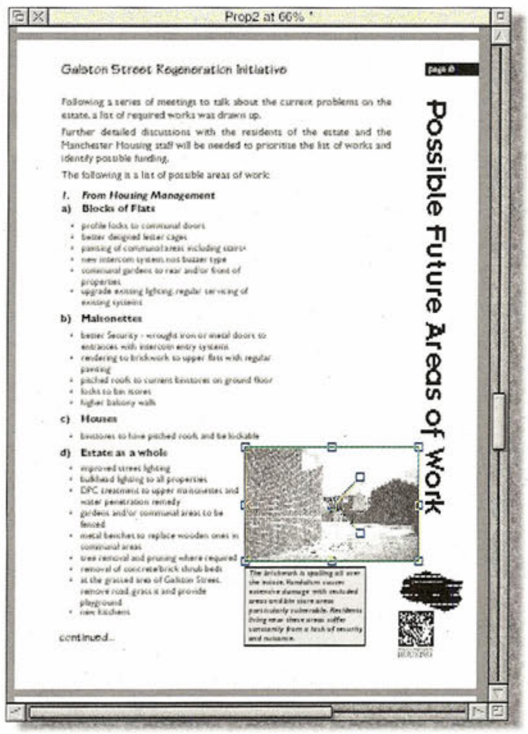
Steve Powell



Where two columns were used they were offset; the leftmost to the top of the page and the rightmost to the bottom. This helped to differentiate the two columns which frequently contained unrelated information that had been spun out to fill whole pages of the original report. Condensing material helped reduce the page count by almost one third.



Charts that were sideways on the page were re-jigged so that they could be read as normal. Grey bars were added to aid legibility as were different text sizes and styles to help differentiate sub-sections.



A hierarchy of type faces and styles helped add an order to point summaries. An image and its caption helped fill out a page with too much white space on the right and too many single line (trailing) points.

Tips for reports

- Use summary boxes on each page to highlight key issues.
- Keep headings large and establish a hierarchy of type faces for headings so that tracking down the right page and then the right section of a page is easy.
- Select your fonts and page grid carefully; they should project the image you want to put across.
- Use a local index box to draw attention to related topics and diagrams rather than using 'see page x' in the text.
- Always try to place related images or charts next to the most relevant text.
- Emphasise the main index, which helps create a structure to the report and aids navigation through it.
- Always include the title of the report and the name of whoever is producing it on each page. That way, if a page becomes separated or is used on its own, it's easy to track it back to the document.

Showroom open Mon-Sat 10-18.00 hrs (All prices exclude VAT) Carriage included except where indicated

CD-ROM

The following CD-ROM's are Multi-Session, PhotoCD, CD-DA, White Book compatible & include a cable & driver for CDFS 2.20

Internal Drives

4x Speed ATAPI (IDE) (Tray)	£150
Above CD-ROM requires RiscPC/A7000 with RiscOS3.6.	
4x Speed SCSI (Tray) XM-5301	£200
The above CD-ROM drive can be used in tower mode!	
4.4x Speed SCSI (Tray) DR-U124X	£240
PCW Verdict - 'It's extremely quick, and a bargain.'	

External CD-ROM Drives

2x Speed SCSI (Tray) 275ms	£199
4x Speed SCSI (Tray) 190ms	£280
4.4x Speed SCSI (Tray) 150ms	£320

SCSI cards

HCCS 16bit SCSI card	£100
Morley uncached SCSI card	£130
Morley cached SCSI card	£169
Cumana SCSI II card	£165

Above are suitable for A300, A400, A3000 (Ext+£25), A540,

Hard Discs

IDE Bare Drives		SCSI Bare Drives	
425Mb 12ms	£110	540Mb 12ms	£145
850Mb 12ms	£Call	730Mb 11ms	£190
1Gb	£Call	1.08Gb 12ms	£280

Above are 3½" bare drives only. Please add the relavent accessories from below. Drives are Connor or Quantum. ForA3000/A3010 hard discs see Hard Card section below.

Syquest Removable SCSI Drives

Internal Drives		External Drives	
EZ135Mb Syquest	£155	EZ135Mb Syquest	£189
(Above includes cartr.)		(Above includes cartr.)	
105Mb Syquest	£150	105Mb Syquest	£210
270Mb Syquest	£259	270Mb Syquest	£329
Syquest Cartridges			
EZ135Mb Cartridge	£20	105Mb Cartridge	£43
		270Mb Cartridge	£49

Hard Disc Interfaces/Accessories

50-50C SCSI Cable	£10	25-50 SCSI Cable	£10
SCSI II-50 Cable	£25	SCSI Terminator	£10
5¼-3½ open adapt	£10	5¼-3½ HD adaptor	£12
IDE Accessories		**SCSI Interfaces**	
IDE interface	£79	Morley UnCached	£130
2nd Hard Drive Kit	£15	Morley Cached	£169
External case/PSU	£79	Cumana SCSI II	£165

TopicArt

Single disc clipart containing approx. 50 high quality draw format clip art images, each on a single subject. Comes with mono reference sheet. 20 subjects are available now. Please specify when ordering. Site licences are £16+VAT per disc, please ring for further details.

New CD-ROM! £34+VAT

Contains over 2000 ClipArt files, each in Draw, ArtWorks & EPS formats + other demos.

Floppy discs £8 + VAT each

Single Floppy disc subjects available (one disc per subject)

1 General	11 Tools
2 Transport	12 AnimalsGB
3 Costumes	13 Chem Signs
4 Entertainment	14 Fire/Emerg Sn
5 Bugs 2 Slugs	15 Hazard Signs
6 Road Signs	16 Safety Signs
7 Sports Equip	17 Xmas1
8 Sports Figures	18 Xmas2
9 Dinosaurs	19 Xmas3
10 Symbols	20 Xmas4



Now available on CD-ROM

TopicArt catalogue available. £1.50 Inc VAT/p+p (cheques only)

New Machines

New Acorn Computers

All RiscPC's include 1yr on-site maintenance. **0% finance available, ring for details.** We operate Acorn Assist for teachers & academics. **For PC 486 Card add £99+VAT to following prices.**

Acorn A7000 (32MHz ARM7500)

Network or hard disc versions, podule slot, free SIMM skt

A7000 2MNET + AKF60	£892
A7000 2MHD425 + AKF60	£935
A7000 4MHD425 + AKF60	£1020

RiscPC600 (33MHz ARM610)

Hard disc, backplane not fitted, free SIMM & VRAM slots.

4MHD425 + AKF60	£1148
4MHD425 + AKF85	£1426

RiscPC700 (40MHz ARM710)

Hard disc, 2 or 4 podule slots, one free SIMM socket.

5MHD425 + AKF60	£1360
5MHD425 + AKF85	£1638
10MHD850 + AKF60	£1692
10MHD850 + AKF85	£1970

Add £111 to above for 2X CD-ROM

20/20 Finance

on Acorn Systems (0%APR)

20% deposit (min) and 20 interest free monthly payments. Available subject to status. Ring for details.

CD-ROM Drive Options

Acorn 2x CD-ROM Drive (IDE)	£111
4x CD-ROM Drive ATAPI (IDE)	£130
4x Speed SCSI (Tray)	£320
4.4x Speed SCSI (Tray)	£360

Above SCSI CD-ROM's include Morley uncached SCSI card, driver and cables. Add £39 for SCSI 2. Above prices only apply when purchased with an A7000 or RiscPC.

RiscPC Multimedia CD-ROM Pack

Includes 25W stereo speakers, Hutchinsons Encyclopedia & The RiscDisc Vol.1 together with one of the following CD-ROM drives.

4X Speed ATAPI CD Pack	£200
The above can only be used on RiscOS 3.6 machines.	
4X Speed SCSI CD Pack	£390
4.4X Speed SCSI CD Pack	£430

The SCSI Pack includes a Morley Uncached SCSI Card. Add £40 extra for Cumana SCSI 2 Card.

Special Offers

(Whilst stocks last)

A3010 Action, Zool Pack with 2Mb RAM, StartWrite and other demos.

£200+VAT

For AKF53 Monitor add

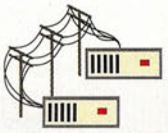
£250+VAT

Carriage £6+VAT for all above.

QuickLynk

New Product

Software only	£28
Software & Local Cable	£Call



QuickLynk allows you to access another Acorn RiscOS computer remotely via modems or locally using a cable to connect the two computers. Each computer can be configured to allow access to any attached filing system device eg ADFS/IDE/SCSI hard disc, etc. Once connected, files can be transferred to/from the remote computer. Other features include password access and auto dialler.

Mail Order - 0161-474 0778 (All prices exclude VAT) Carriage included except where indicated

A3010 Series

A3010 Action Pack 2Mb RAM	£200
A3010 Learning Curve 2Mb RAM	£250
A3010 Early Years 2Mb RAM	£250

Add £250 to A3010's for AKF53 Monitor. Carriage £6+VAT on A3010 systems.

A3020/A4000 Series

A3020 2MFD/AKF53 MultiScan System	£509
A3020 2MFD/AKF50 MultiScan System	£549
A3020 2MHD80/AKF53 MultiScan Sys	£637
A3020 2MHD80/AKF50 MultiScan Sys	£677
A4000 2MHD210/AKF53 MultiScan Sys	£722
A4000 2MHD210/AKF50 MultiScan Sys	£762

Software Packs

Learning Curve Advance & PCSoft	£42
Early Years Talking StartWrite, Paint Pot	£42
Flossy the Frog, Mouse in Holland, etc.	
Home Office	£85
EasiWriter2, DataPower, Pipedream4, PCSoft	

The above packs are ONLY available with a computer system, (not including the A3010)

RiscPC Upgrades

PC486 Card	£99
(when purchased at same time as a RiscPC)	
MS-DOS 6.22 & Windows 3.11	£79
Microsoft Encarta '95	£38
16 bit Sound Card (Acorn)	£60
2nd Slice Case Upgrade (Carr. £6+VAT)	£99

Memory Upgrades

RiscPC Memory, please ring to confirm prices

4Mb SIMM	£100	8Mb SIMM	£210
16Mb SIMM	£359	32Mb SIMM	£Call
1Mb VRAM	£129	2Mb VRAM	£169
1-2Mb VRAM Upgrade (exchange)			£109
A3000 Memory			
1-2Mb RAM	£55	2-4Mb RAM	£90
1-4Mb RAM	£129		
A3010 Memory			
1-2Mb RAM	£40	2-4Mb RAM	£105
1-4Mb RAM	£145		
A3020/A4000 Memory			
2-4Mb RAM	£89		
A5000 Memory			
2-4Mb RAM	£89	4-8Mb RAM	£259
A300/400 Series			
4-8Mb RAM	£249		

Monitors

Acorn AKF53 14" 0.39dp MultiScan	£250
Acorn AKF50 14" 0.28dp MultiScan	£318
Acorn AKF60 14" 0.28dp MultiScan	£325
Acorn AKF85 17" 0.28dp MultiScan	£530
Ilyama MF-8617A 17" 0.26dp M/Scan	£549
Older computers will require an adaptor	£12

Printers (Include Cable)

Canon BJ-200ex (360dpi)	£200
Canon BJ-230 (360dpi)	£280
Canon BJC-600e Colour (360dpi)	£360
Canon BJC-4000 Colour (360dpi)	£240
Epson Stylus Colour Printer (720dpi)	£Call
HP LaserJet 5L 4ppm (300dpi)	£Call
HP LaserJet 5P 6ppm (600dpi) **New!**	£639

Add £40 to above printers for TurboDriver

RiscOS 3.1 Upgrades

Single Rom set (fitting instr./no discs)	£30
3 Rom sets (fitting instr./no discs)	£79
10 Rom sets (fitting instr./no discs)	£255
Documentation (Guide & Discs) (0% VAT)	£29
Carrier board for A300/A440	£22

Portable Computers

Acorn A4 Portable			£1295
Pocket Book II (256k)			£205
Pocket Book II (512k)			£255
Pocket Book II (1Mb)			£285
Psion 3a (256k)	£199	Psion 3a (512k)	£249
Psion 3a (1Mb)	£270	Psion 3a (2Mb)	£320
A-Link	£42	PC Link	£60
Parallel Link	£26	Mains Adaptor	£15
128k RAM SSD	£43	512k RAM SSD	£105
256k Flash SSD	£47	512k Flash SSD	£77
PB/Ps3 Games	£Call	PBII/Ps3a Games	£45

Hardware Upgrades

24i16 Multimedia Card (512kb framest.)	£339
24i16 Multimedia Card (1Mb framestore)	£379
486sx25MHz Bare PC Card	£299
486SLC50MHz Bare PC Card	£349
Refer to RiscPC memory to add to PC cards.	
FPA Upgrade for ARM3	£59
Colour Card Gold (CC)	£199
Eagle M2 Multimedia Card (CC)	£319
Joystick Interface (all m/c's)	£28
Logitech Mouse (Acorn)	£25
Midi Max Card (CC)	£68
Movie Magic (CC)	£249
Powerpad (dual) (Gamesware)	£33
Scart - 15pin Monitor/RGBTV cable	£12
Serial Upgrade for A3000 (Acorn)	£19
Stereo Speakers 25W (mains powered)	£35
TV Tuner with TeleText (CC)	£157
User/Midi Upgrade (A30x0/A4000)	£40

Modems

Sportster Modem Bundles

Modem bundles include a Sportster modem, cable, phone splitter, ArcTerm7 & ArcFAX.

14k4 Sportster Fax/Modem Bundle	£210
28k8 Sportster Fax/Modem Bundle	£265
V.34+ Courier Fax/Modem & cable only	£345

Sportster Modems

14k4 Sportster Fax/Modem & cable only	£140
28k8 Sportster Fax/Modem & cable only	£190
V.34+ Courier Fax/Modem & cable only	£270

I^3 Networking

A30X0 EtherLan 102 10Base2/T	£125
A3020/A4k EtherLan 200 10Base2	£135
A3020/A4k EtherLan 201 10BaseT	£135
A300-A5k EtherLan 502 10Base2/T	£125
RIscPC/A7k EtherLan 602 10Base2/T	£105

For Access+ add £15 to above prices.

Scanners/Digitisers

ScanLight Video 256	£199
Canon IX-4015 Colour SCSI Scanner	£609
Epson GT-8500 Colour SCSI Scanner	£525
Above includes !TWAIN/ImageMaster & Cable	
Vision24 Colour Digitiser	Int £69/Ext £94
Hi-Vision24 Digitiser A5000	Int £94/Ext £119

Hard Cards/Multi-Pods

A3010 HCCS Hard Disc Multi-Podule	
80Mb + User Port + 2 Slots	£185
160Mb + User Port + 2 Slots	£315
250Mb + User Port + 2 Slots	£475
A3000 Internal IDE Hardcards	
80Mb + User Port	£155
160Mb + User Port	£275
250Mb + User Port	£415

See top of page for other hard discs.

Printer Consumables

BJ-10 Ink Cartridge (BC-01)	£16
BJ-200 Ink Cartridge (BC-02)	£17
BJ-300 Ink Cartridge (BJI-642)	£15
BJ-600 Black Cartridge (BJI-201bk HiCap)	£10
BJ-600 Colour Cartridge (BJI-201)	£8
BJC-4000 Black Cartridge (BCI-21Bk)	£9
BJC-4000 Colour Cartridge (BCI-21C)	£17
BJC-4000 Fast Black Cartridge (BC-20)	£25
BJ-800 Black Cartridge (BJI-643)	£16
BJ-800 Colour Cartridge (BJI-643)	£20
DeskJet500 Mono/Colour Cartridge	£20/£23
EP-L Toner (LBP-4/HP LJIII)	£59
Epson Stylus Colour	Black £16/Colour £30
HP 92274A Toner (HP LJ4L)	£59
JP-150 Ink Cartridge (Acorn)	£22
Swift24 Mono/Colour Ribbon	£7/£15

Books (No VAT)

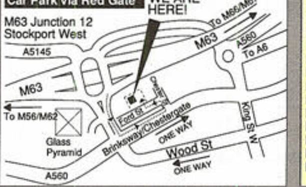
Acorn RISCOS3 PRM's **Add £7 carr.**	£99.95
Acorn 5th PRM covering RiscOS3.5	£29.95
Acorn BBC Basic VI Guide	£19.95
RiscPC Tech Ref Guide **Add £7 carr.**	£29.95
ArtWorks Made Easy (Dabs)	£14.95
Begin's Guide to WIMP Prog	£12.95
DTP on the Archimedes (Sigma)	£12.95
First steps in prog RiscOS (Sigma)	£14.95
Game Maker's Manual (Sigma)	£14.95

Add £2 Carr to above (£4 for Acorn books)

Terms

EC residents add 17.5% VAT to all prices except books. Carriage free in UK (excluding remote areas) (except books), elsewhere at cost. Orders MUST be accompanied by a phone number. Prices and spec's subject to change without notification. Goods subject to availability. Goods not offered on trial basis. Restocking fee on non-faulty returns. Official orders welcome from educational institutes, chq with order under £30. E&OE.

Where to Find Us



CD-ROM's

ArtWorks on CD (CC)	£130
Childrens Micropedia CD	£85
ClipArt CD 1/2 (CC)	£19 each
Encarta '95 for Windows	£Call
Granny's Garden CD	£28
Hutchinsons Encycloped'	£40
Replay Starter Kit (Acorn)	£37
RiscDisc Vol 1 CD	£17
Simon the Sorcerer CD	£36
TopicArt CD-ROM	£34

Applications

Advance 2Mb (Acorn)	£99
Advantage (Longman)	£46
ArcFax (David Pilling)	£28
ArcTerm7 (Serial Port)	£58
ArtWorks (CC)	£120
AudioWorks (CC)	£45
C/C++ (Acorn) (£6 Carr)	£212
CADet (Minerva)	£99
Card Shop (Clares)	£19
Chameleon 2 (4Mation)	£33
Compl. Animator (IOTA)	£79
Compression (CC)	£29
DataPower (IOTA)	£123
Desktop Thesaurus (BB)	£19
Digi. Symphony (Oregan)	£48
Disc Rescue (Look)	£28
Easy C++ (Beebug)	£93
Eureka v3 (Longman)	£93
FireWorkz (Colton)	£89
FireWorkz Pro (Colton)	£139
Font Dir (Look)	£28
Font FX (DataStore)	£10
Glimpse (Sherston)	£10
Graphics Loaders (CC)	£42
Hard Disc Comp. (BB)	£42
Hatchback (4Mation)	£32
Hearsay II (Beebug)	£75
Home Accounts (Minerv)	£28
Illusionist (Clares)	£40
Image Outliner (IOTA)	£46
Impression Publisher	£120
Impression Publisher+	£259
Impression Style (CC)	£75
InterTalk (Acorn)	£78
MacFS (CC)	£76
MacFS Lite (CC)	£45
Magpie (Longman)	£50
MasterFile III (Beebug)	£45
Morpheus (Oregan)	£32
Night Sky (Clares)	£63
Notate (Longman)	£54
Ovation (Beebug)	£79
PenDown Plus (Long)	£67
Personal Accounts (Apr)	£38
PhotoDesk (Spacetech)	£157
PhotoTouch (Oregan)	£68
Pin Point Junior (Long)	£25
Plot (Clares)	£63
Poster (4Mation)	£74
ProArtisan 2 (Clares)	£102
Prophet (Apricote)	£145
PublishArt (SmartDTP)	£29
Recordz (Colton)	£97
Render Bender v2 (Cla.)	£41
Rephorm (Oak)	£45

Applics (Contd)

Resultz (Colton)	£75
Rhapsody (Clares) v2	£44
Rhapsody (Clares) v3	£74
S-Base2 Personal (Long)	£48
S-Base 2 Developer	£98
S-Base 2 Developer+	£147
Serenade (Clares)	£75
ShapeFX (Datastore)	£10
Sibelius 6	£149
Sibelius 7	£789
Sleuth (Beebug)	£50
Sleuth2 (Beebug)	£93
Snippet (4Mation)	£32
SparkFS (Pilling)	£21
Speech 2! (Superior)	£22
Studio24 (Pineapple)	£120
Titler (Clares)	£79
Touch Type (IOTA)	£38
TurboDriver BJ (CC)	£42
TurboDriver HP (CC)	£42
TurboDriver Epson (CC)	£42
Tween (Ace)	£28
TypeStudio (Beebug)	£43
Vector (4Mation)	£75
WordWorks (CC)	£36
Wordz (Colton)	£54

Games

Air Supremacy (Sup)	£13
Arcturus (Oregan)	£20
Axis (TBA)	£20
BattleChess (Krisalis)	£22
Birds of War (4D) 2Mb	£23
Black Angel (4D)	£23
Blood Sport (Matt Black)	£12
Break 147/Superpool	£23
Burn Out (Oregan)	£20
Cannon Fodder (Krisalis)	£20
Carnage Inc (4D)	£18
Champions (Krisalis)	£22
-Includes Man Utd, J Khan	
- Squash, Wld Class	
- Leaderbrd & Boxing Mngr	
Chocks Compendium	£23
Chopper Force (4D)	£22
Chuck Rock (Krisalis)	£9
Crystal Maze (Sher)	£28
Cyber Chess (4D)	£23
Cygnus Collection	£20
- Incl Twin World, Iron Lord &	
- Tower of Babel	
Diggers (Millenium)	£22
Dreadnoughts (Turcan)	£26
Dune II (Eclipse)	£27
Dungeon (4D) 2Mb	£23
Elite Gold Edition (Hyb)	£25
Enter the Realm 2Mb	£13
E-Type Compend. (4D)	£13
E-Type 2 (4D)	£23
Flashback (US Gold)	£21
FTT (TBA)	£20
GODS (Krisalis)	£9
Guile (Dream)	£22
Haunted House 2Mb	£18
Heimdall (Krisalis) 2Mb	£22
Hero Quest (Krisalis)	£22
Holed Out Compendium	£13

Games (Contd)

James Pond (Krisalis)	£9
James Pond 2 RoboCod	£20
Krisalis Collection	£22
-Includes, Mad Prof, Pipe'm,	
- Terramex & Revelation	
Lemmings (Krisalis)	£19
Lemmings for RiscPC	£22
Lemmings 2 Tribes 2Mb	£22
Lotus Turbo Chall2 (Kris)	£19
Magic Pockets (Reneg)	£20
Magnetoids (Oregan)	£22
Man United Europe (Kris)	£9
Oh No More Lemmings	£16
Pandora's Box (4D)	£13
Playitagain Sam 1/2/3	£19ea.
Populous (Krisalis)	£22
Real McCoy 2/3/4	£24ea.
Repton 3/4 (Superior)	£19ea.
Sally & Wally (Oregan)	£20
Saloon Cars Deluxe (4D)	£23
Scrabble (US Gold)	£21
Sensible Soccer (Reneg)	£20
Sim City (Krisalis)	£23
Sim City 2000 (RiscPC)	£30
Sim City 2000 (A5000)	£30
Simon the Sorcerer 2Mb	£31
Small (Virgo)	£19
Speedball 2 (Krisalis)	£20
Spheres of Chaos (Matt)	£17
Spobbleoids	£20
Starfighter 3000 (Fednet)	£23
Stunt Racer 2000 (4D)	£23
Stunt Racer Xtra Tracks	£17
SWIV (Krisalis)	£9
Time Machine (4D)	£18
Virtual Golf (4D) 2Mb	£23
Virtual Golf Augusta Cse	£13
Wavelength (G/W)	£18
Wolfenstein 3D (Powers)	£23

Educational

10/10 Software Series	
-Early Essentials (over 7)	£18
-English (6-16yrs)	£18
-French (8-16yrs)	£18
-Junior Essentials (5-11)	£18
-Maths (Number) (6-16)	£18
-Maths (Algebra) (6-16)	£18
-Maths (Statistics) (6-16)	£18
-Spelling (over 9)	£18
-Driving Test	£10
-Dinosaurs (all ages)	£10
Crystal Rain Forest (Sh)	£40
Darryl the Dragon (4M)	£18
Fun School 3	£17
(Spec age group ,<5, 5-7, >7)	
Fun School 4	£17
(Spec age group ,<5, 5-7, >7)	
Granny's Garden (4M)	£23
KidPix (ESM)	£37
Maths Circus (4Mation)	£25
Noddy's Playtime (JBn)	£20
Playdays (Gamesware)	£21
Rosie & Jim	
- Duck loses its Quack	£10
- Jim gets the sneezes	£10
Call for titles not listed	

Desktop Projects Ltd

Tel: 0161-474 0778

Authorised Acorn Dealer, Fax: 0161 474 0781, Email: info@desktopp.demon.co.uk

Unit 2A, Heapriding Business Park, Ford St, STOCKPORT, Cheshire, SK3 0BT

Access VISA SWITCH

DEC 95

Public Domain

PD on the Web

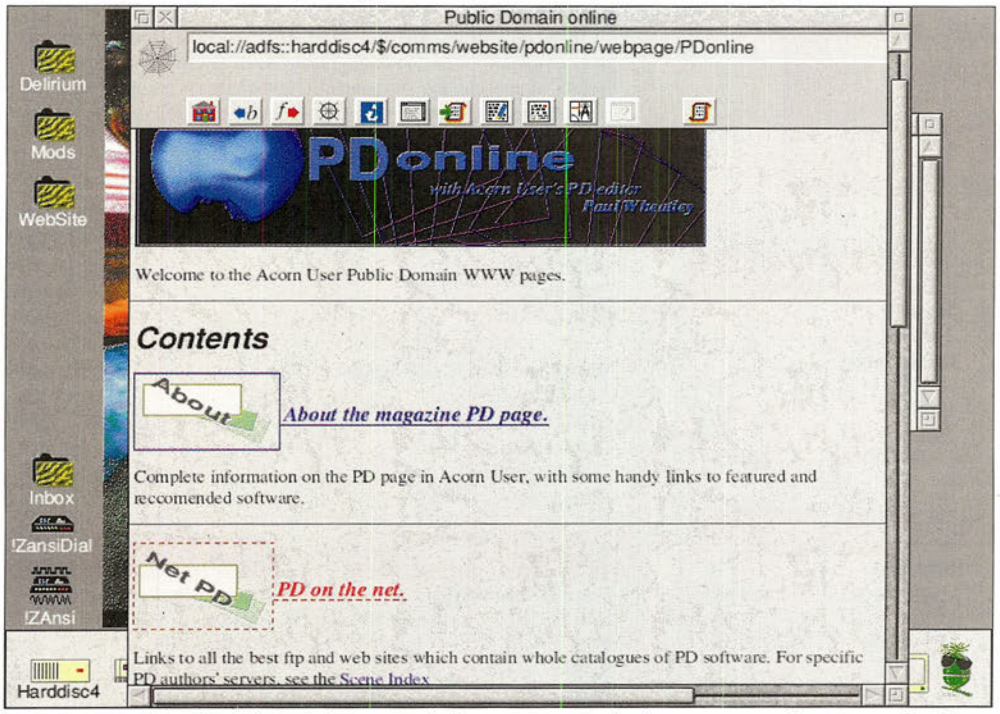
FOLLOWING the launch of *Acorn User*'s Web pages, the site now includes a special section based on the PD page. PD Online is designed to complement the coverage of the magazine PD page, providing a range of information on the scene and its software. The site is split up into five main sections.

The first section provides links with the magazine page. Over the coming months I'll be adding links to software reviewed in the column as well as featuring programs that didn't quite make the PD page. The following two sections contain everything you need to know about getting hold of PD software. On the net, 'PD sources' provides links to all the main servers, and the offline section lists PD libraries to try.

The beginners section is quite a comprehensive collection of basic PD information. It's sort of a 'frequently asked questions on PD', in a hypertext format. Well worth a look if you're just starting out to explore the PD scene, or if you want to get involved in starting up your own PD library.

The final section is a bit different from the rest of the site in that it's just the start of what will hopefully become a detailed scene database. The idea is to provide details about PD authors. Everyone from demo groups to lone utility authors will be included. I'll be adding to this section on a regular basis, but I need your help to make it work. If you write software and want to be featured, post or preferably e-mail some details about yourself to the usual addresses. I need a short description about the person or group, along with contact addresses and a list of software produced. If the software is on the net, I need net addresses to add links. If not, I may be able to include your software on the server.

Please have a look at the site and if possible, help me out with making it into a useful resource for everyone on the scene.



Acorn User's World Wide Web site gains some valuable new pages, and what more appropriate way to view them than by using *ArcWeb* or *Webster*, the Freeware WWW viewers?

Acorn into gear

REGULAR readers will have noticed the frequency with which I fail to write comment sections praising Acorn's sales strategy with regard to the average enthusiast and PD fanatic. However, there's a first for everything, and this month I really need to praise Acorn's latest Clan Acorn moves.

Clan members buying new Risc PC machines can now claim back a bundle of development software and manuals. The package is worth nearly £400 and includes the Acorn C compiler and PRMs. The PD scene and array of enthusiasts which Acorn is targeting with the Clan contains a vast wealth of programming talent which Acorn is now starting to encourage.

I really hope Acorn will continue to pursue this line. There are so many things that can be done to encourage the development of software for the Acorn platform. And why not exploit some of the existing software in the PD scene? My computer seems bare without a good few PD applications in the boot sequence – why not start including the best PD utilities on the hard discs of new machines?

Extreme possibilities?

French coding force Arm's Tech has nearly completed a collaboration with Belgian group BASS. The combined teams are working on a brand new demo which will probably be called *X-Treme*. Arm's Tech's front man, Frederic Elisei, informs me that the groups intend to get a bit more competition back into the demo scene and give German group, Xperience, a run for its money.

Highlights from BASS include a special Risc PC section and Frederic will be contributing some of his amazing texturing and voxel landscape routines. Looks like my own group Quantum is way out of contention on the demos scene right now.

Meditation

The wacky writing team that brought us the four-course gourmet magazine that is *Lunchtime* has been hard at work developing its magazine editor. *Meditate* has now been updated with a new front-end program and a host of functional and aesthetic improvements.

The team also has a new game under development, but with his usual sarcasm, spokes-entity for the group, Andy, has launched a competition to guess the decade it's released in.

The front end

Front-end programs for the *Queue The Music* tracker player seem to be all the rage at the moment. Simon Hatliff has just released a major update of his *PD Tracker* program which is available direct from Simon's Web site, at: http://www.ed.ac.uk/~simh/files.html.

Sounds Riscy is also working on a new release of its front end – *Q2Track*. This should be out within the next month, but you can keep up-to-date on its progress by checking out the group area in PD Unlimited on the Digital Databank BBS.

Contacting me

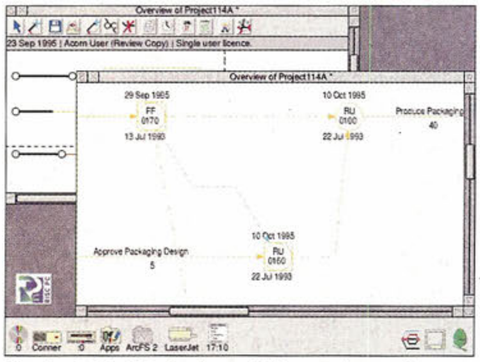
You can contact the PD page by writing to me, Paul Wheatley, at *Acorn User*, IDG Media, Media House, Adlington Park, Macclesfield, SK10 4NP. Or preferably, by e-mail to quantum@digibank.demon.co.uk or online on the Arcade BBS.

Business

Intuitive project planning

ADVANCED Computer Products has not only added a button bar but also keyboard short cuts to *ProjectING*, its project management package. With the exponential productivity benefits these enhancements bring, *ProjectING* is now a decidedly attractive business solution. Keyboard short cuts are implemented for all the main options – such as to turn the *Draw* mode on and off and to redraw an activity.

The software has always been intuitive; I learned how to use it within about ten minutes. That said, ACP agrees with me that the resource facilities could be improved.



Version 1.10 of *Projecting* with its new button bar.

Unlike the first (PC) project management package I used – the now defunct *Pertmaster Advance* – networks are entered by directly drawing the network into the window rather than by using laborious tables. This, I feel, enables a heightened awareness of what one is actually doing.

ProjectING works with projects using network-based PERT charts, which enable complex projects to be viewed in detail. However, while such charts are ideal for the project manager, they can be a little overwhelming for customers. Instead, Gantt charts (which look a little like rotated bar graphs) are a more lucid solution; unfortunately, *ProjectING* cannot yet produce these. However, ACP admits that this is a major limitation and wants to implement them as soon as possible. When ACP does, the Acorn platform could well have an unsurpassed project planning package.

For a free demonstration disc or further information give ACP a call on (01256) 56666.

PC data exchange

ACORN will be showcasing *PC Exchange* at Acorn World. This new utility for users of PC cards will enable users for the very first time to both drag-and-drop as well as cut, copy and paste between Acorn and Windows packages. This uses the Windows clipboard to transfer data, and will convert bitmap formats. Multiple items on the clipboard can be accommodated.

Unfortunately, this will not support the Adobe *Acrobat* 'standard' data-exchange format, though Acorn is looking at implementing this. *PC Exchange* will cost £25.

Hints and tips

DataPower: Clicking with Adjust (the right-hand mouse button) on its icon bar icon opens up the directory display where *DataPower* is installed.

Eureka: A number of undocumented options can be set by altering the file: *!Eureka.Resources.Settings*.

These include the typeface used for dialogue boxes and the width of the control panel.

'z'-set: Clicking with Adjust on the icon bar icon produces a new document based upon the template which is alphabetically first. If you have a number of templates for each estimate you produce, place them in their own directory inside *!Fireworkz.User.Template*.

Bowing out

AFTER 15 issues of column writing it's time to sing my swan song so that I can go in search of greater opportunities – co-developing a Personal Information Manager for Apricote Studios. Working in close association with one of the companies which frequently features on these pages would obviously bias the coverage somewhat, so I'm letting the column go.

I will still be writing reviews and features for *Acorn User*, so you haven't seen the last of me on these pages. The business column is being given a rest for the time being, but if there is anyone out there who wants to take up the challenge of writing for the professional side of the market, we'd love to hear from you at *Acorn User*.

My personal wish-list

- Gantt charts in *ProjectING*.
- A route-finding package, like *Autoroute Express* for the PC.
- A package where a postcode can be entered producing all the possible addresses it could relate to.
- Drag-and-drop in *Fireworkz* (as pledged several years ago).
- A Pentium PC card.

Swifter PC cards

Because Windows 95 is a decidedly sluggish and subordinate operating system, it requires a particularly swift hard drive in order to function at a tolerable speed. Using a *DOSFS* partition on an Acorn hard drive is okay, but Windows' continual disc access can make this somewhat infuriating.

In response to this, Castle Technology has produced a 16-bit SCSI interface with the ability to format SCSI hard drives with intrinsic DOS partitions which, according to Castle Technology, offers a significant speed advantage. The interface is in fact capable of operating at 32-bits with an additional lead. These interfaces are available for all machines except the A4 portable. Prices start at £99 + VAT.

Castle Technology
Tel: 01728 621222
Fax: 01728 621179

In the news

Acorn is on the lookout for people using Acorn machines in an interesting or extraordinary way. As Clan members will be aware, Acorn is building up a case-study library which it uses to suggest articles in the non-Acorn press.

Address: Newsroom, Acorn House, Vision Park, Histon, Cambridge CB4 4AE.
E-mail: newsroom@acorn.co.uk

New online manual

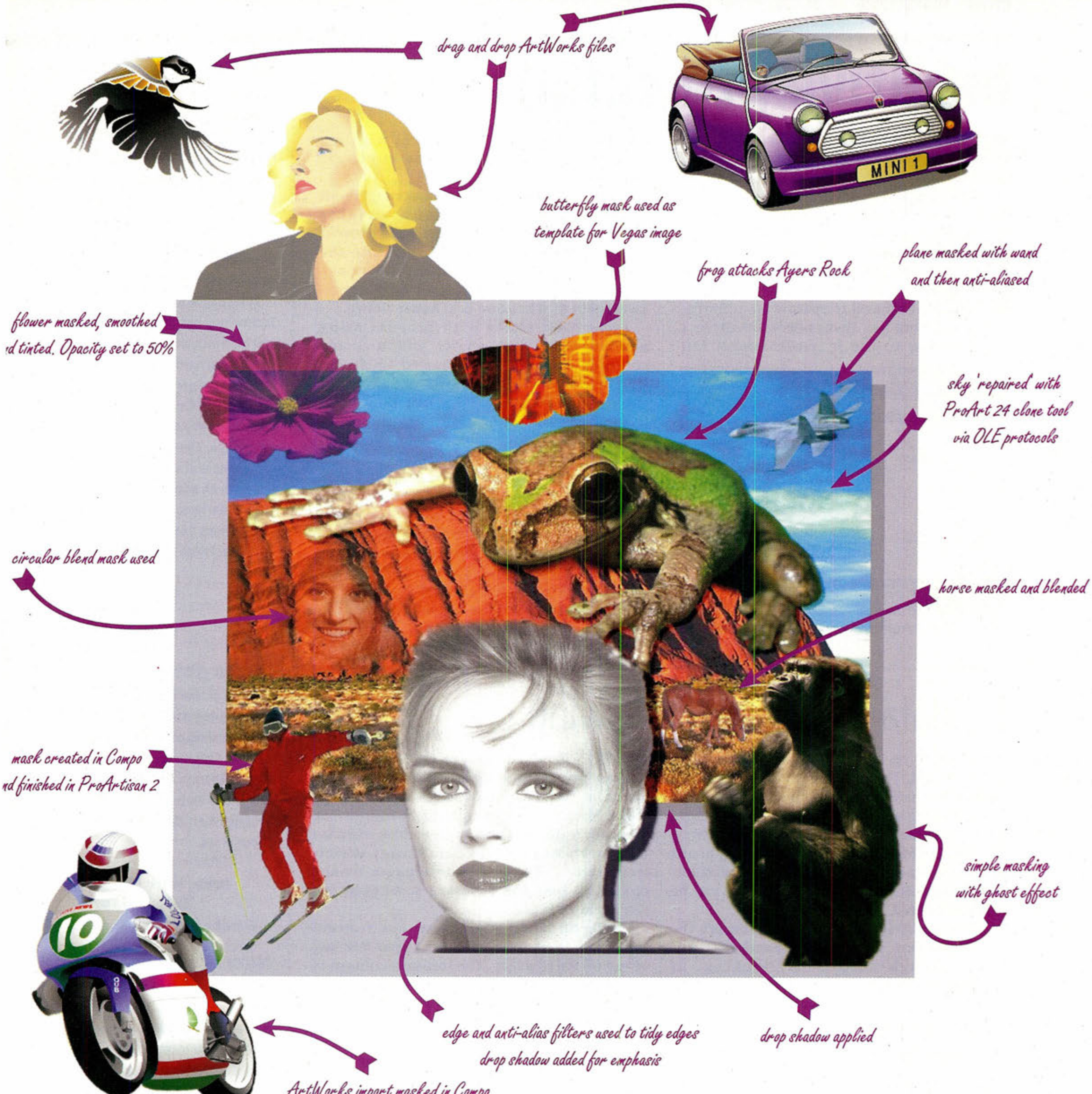
By the time you read this, iSV Products will have added a more convenient, graphical and in-depth online manual to *TableCalc*, analogous to Computer Concepts' *WordWorks* as provided with the *Impression* range.

iSV Products
Tel: 01344 55769

Contacting me

As I will still be writing for *Acorn User*, if you wish to contact me, please write to Alexander Singleton, Acorn User, IDG Media, Media House, Adlington Park, Macclesfield SK10 4NP.

Composition



£169.95 inc VAT (P&P free)

Special offer price of £85 for ProArtisan 24 owners

Introductory offer - £99.95 for users of other art packages

Access

VISA

CLARES

MICRO SUPPLIES

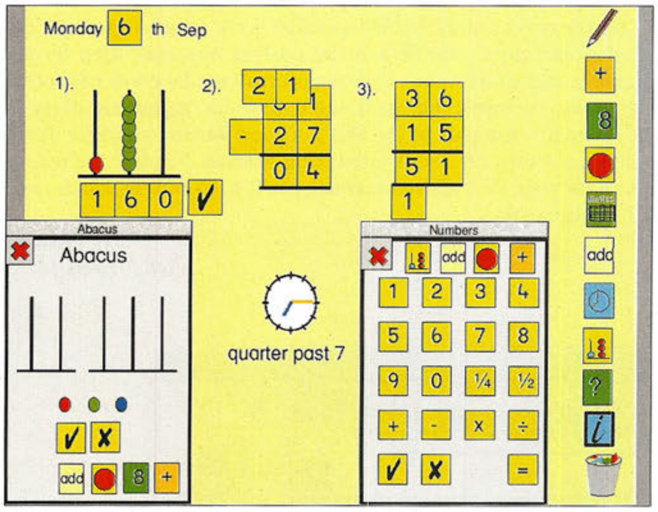
98 MIDDLEWICH ROAD, RUDHEATH, NORTHWICH, CHESHIRE CW9 7DA

RISC PC

EXCLUSIVE

Education

My World material



Special thanks to Dave Walsh from Information Training and Advice who has supplied some material for SEMERC's *My World 2*. Dave produces a great deal of support material, some of which is available through SEMERC or some of the major PD houses. This material is specifically aimed at Key Stage 1 and 2 Mathematics. On the cover disc is a *My World* folder containing a *Read_me* file which outlines the history of the material and gives some explanation as to its intended use. The two folders called *Screens* and *SENmaths* contain the material.

Dave Walsh's address is included in the *Read_me* file on the disc, but he may also be contacted on (01227) 369362.

One computer for each child

ACORN'S long-standing dream of one computer per child comes nearer with the announcement of reduced Pocket Book prices. The entry level Pocket Book II is now down to £205 with class packs of ten priced at £2050 which includes mains adaptor, desktop link and parallel printer link. Site packs of 1000 Pocket Books are also available at reduced rates.

Acorn Education
Tel: (01223) 254254
Fax: (01223) 254262
E-mail: info@acorn.co.uk

New price list

Code	Product	Price (+ VAT)
AHB05	Pocket Book II 256K	£205.00
AHB07	Pocket Book II 1Mb	£285.00
AHA20	128K RAM Disc	£42.51
AHA21	256K Flash Disc	£46.77
AHA22	512K Flash Disc	£76.55
AHA30	A-link	£42.51
AHA31	Parallel Link	£25.49
AHA35	Mains Adaptor	£12.72
AHA36	PC Link	£59.53
AHA37	M Link	£68.04
AHB12	Pocket Book II 256K Class Pack (10 units)	£2050.00
AHB13	Pocket Book II 256K School Pack(100 units)	£20000.00
AHB14	Pocket Book II 256K Site Pack (1000 units)	£192500.00
AHB17	Pocket Book II 1Mb Class Pack (10 units)	£2850.00
AHB18	Pocket Book II 1Mb School Pack (100 units)	£27500.00
AHB19	Pocket Book II 1Mb Site Pack (1000 units)	£260000.00

Students' IT magazine

IT'S not normal practice to write a piece in one magazine extolling the virtues of another, but last week issue 1 of *Monitor* landed on my desk and it deserves a plug. I feel this is an important publication because it's aimed not at an adult market, but squarely at Key Stage 3 students. It's published by Philip Allan who also publishes successful student magazines such as *Wideworld* and *Outlook*. It's a multi-platform magazine and includes articles by teachers and students. A single subscription (three issues) is £5 provided three or more issues are sent to the same address. Another reason for mentioning it is because the editorial team, *Educational and Multimedia Associates*, uses Risc PCs and *Impression*. This is hardly surprising when you realise this team was responsible for the CD-ROMs *Langdale* (for Creative Curriculum Software), *London from the Air* (for PhotoAir Software Ltd) and the forthcoming *Mechanisms* (also for CCS).

Philip Allan Publishers Ltd
Tel: (01869) 338652
Fax: (01869) 338803

Electronic pen pals

Further to my note in the September issue about setting up e-mail pen friends, Stuart Longbottom, a professional Internetwork Consultant and managing director of Long Co and @theNET contacted me. Stuart would very much like to hear from any school around the world and will offer the first five schools who contact him a free page on his Web server for the next four years. I would also like schools from around the world who would like to e-mail other schools to contact me and I will publish their names and e-mail addresses in these hallowed pages.

Stuart Longbottom's e-mail address is: stuart@tengine.demon.co.uk

Modem offer

I expect many schools will have taken advantage of Acorn User October's excellent modem offer. But now a word of caution; there are some images on the Internet which are unsuitable for school consumption. Before opening the Internet up to the whole school, ensure you have protected such areas with passwords. We are slightly better off than Mac and PC users because not many images are in native RISC OS format, although modern conversion programs mean that these images can be easily translated. Enough said.

Cryptic plea

This plea is only cryptic if you don't know what ILS is. If anyone is using an ILS system on Acorns at their school I would be very grateful if you could write to me at either address below, telling me (briefly) the software you are using and your views about the system.

Contacting me

You can contact the Education page by writing to me, Geoff Preston at Acorn User, IDG Media, Media House, Adlington Park, Macclesfield SK10 4NP or by e-mail to: gpreston@arcade.demon.co.uk

On-line instruction

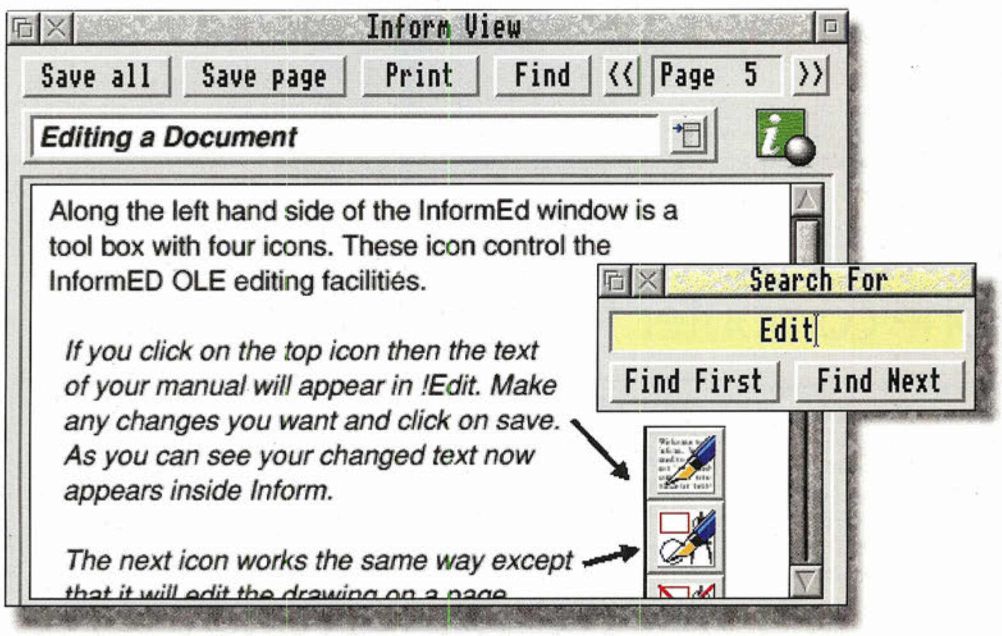
WHENEVER students use the network, sooner or later they invariably need some simple instructions on how to carry out a particular task. This usually involves calling me to answer questions such as, 'How do I change my password?', 'How do I print? from *Edit*', 'I've forgotten how to log on' and 'How do I save my work?' In these days of self-help and differentiated learning, I felt there must be some way of enabling students to find out the answers to some of the more basic questions for themselves quickly and without resorting to information sheets which become tatty and then get lost.

Aaron Timbrell at iSV has produced an on-line instruction application which is a greatly enhanced version of *Manual* is supplied with all iSV products. *Inform* will display pages of text (with accompanying graphics if required) in a small window. The text can be easily edited and highlights such as bold and italics included. There is also a search facility which will enable the user to search out the required instruction quickly, and the window can be scrolled therefore eliminating the restriction on the amount of text which can be entered on each page.

Aaron has written the program to be as network-efficient as possible. Graphics are only loaded when required and the scroll buttons do not auto-repeat, as auto-repeating could cause several graphics to be downloaded unnecessarily. Although the whole manual can be printed, the program defaults to printing only one copy of the current page.

On the cover disc is *NetHelp* and *HowToUse* which were both created with *Inform*. *NetHelp* is the on-line 'manual' used by my students and while some of the details may not be correct for other networks – in particular, path names and disc names are likely to be different – the bulk of the text is a good starting point for developing your own on-screen instruction manual. To alter the text or to create your own on-line manual you'll need *Inform* which costs £25.00 from iSV.

iSV Products
Tel: (01344) 55769



Good on-line help from *Inform* by iSV Products.

Tip for the month

IF you manage a 10Base2 network, you'll know that if there is a break or a short in the cable run none of the computers on the network will work. Without expensive test equipment, tracing a hardware fault can be time-consuming. With the computers switched off, undo a network lead roughly in the centre of the cable run. Put a multimeter across the two terminals on the BNC plug on one of the leads and you should get a reading of about 50ohms. If you do, that side of the network is ok. If not, work your way down the leads until you find the fault. Starting in the centre at least means you can eliminate 50 per cent of the network.

Contacting me

You can contact the Network page by writing to me, Geoff Preston, at *Acorn User*, IDG Media, Media House, Adlington Park, Macclesfield SK10 4NP, or by e-mail to: GPreston@arcade.demon.co.uk.

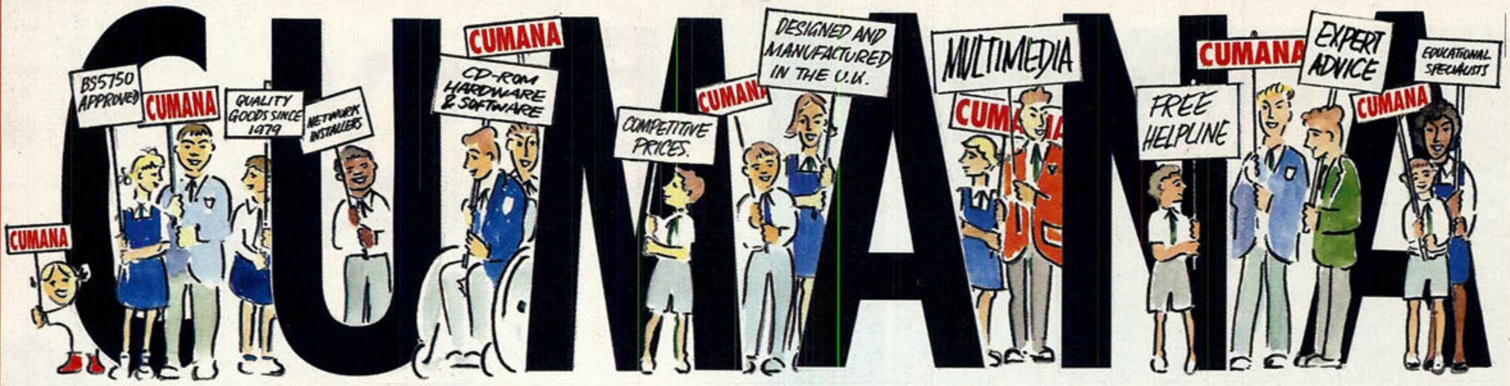
Monitoring your printing

CONNECTING printers to a network opens up the possibility of consuming copious amount of paper. Children, given the chance, will print out anything and everything and often in triplicate. Room 20 software are just about to launch a program which should help reduce if not remove the problem.

Quota does two things. First it provides clients with a pre-determined number of printouts. Students will then be more thoughtful when they print something as there is a limit on the number of times they can print. The second feature is that it writes a log of who prints what and when so that people printing rubbish from the four corners of the site can be identified.

Setting up is straightforward and requires almost no maintenance (something I wish I could say about network printing in general). The file which determines who can print and how much can be printed is created largely from the user names held within *Level 4*. All the network manager has to do is enter a default number of copies per user.

Room 20 Software
Tel: (01246) 856684
E-mail sales@rmtwenty.demon.co.uk



WINTER WONDERLAND!



CD SOFTWARE*

Acorn Replay Video Collection *(Save £6)*
Horizon *(Save £18)*

£5 inc. VAT £4.26 ex. VAT

Karaoke Macbeth *(Save £20)*
Karaoke A Midsummer Night's Dream *(Save £20)*
Living Poetry *(Save £42)*
Artworks ClipArt *(Save £7)* • Revelation 2 *(Save lots!)*

£15 inc. VAT £12.76 ex. VAT

Top Class Mathematics (PC Format) *(Save £15)*
Grannys Garden *(Save £15)* • Goldilocks *(Save £15)*

£20 inc. VAT £17.02 ex. VAT

World of Number Series • Number Games *(Save £20)*
Perspectives *(Save £20)* • Picture Gallery *(Save £20)*

£25 inc. VAT £21.28 ex. VAT

*ACORN FORMAT UNLESS STATED

CD-ROM DRIVES

OSCAR

Purchase any new Acorn A4000 before November 30th and benefit from **£100 + VAT discount** off the price of Oscar external parallel port CD-ROM drive

£129 ex. VAT (when purchased with an A4000)

INDIGO 300i

Cumana's best selling internal CD-ROM drive for the Risc PC.
Normally £125 + VAT

£99 ex. VAT

INDIGO 300iA

As per the 300i plus audio mixer and Clares ProArtisan 2CD software, documentation and cables. **Normally £175 + VAT**

£129 ex. VAT



16 BIT SCSI CARD

Excellent low cost SCSI card upgrade for Acorn A300, A400, A540 and A5000 owners (can also be used as budget option with Risc PCs). Supplied with CDFS and SCSI Manager Software. **Normally £99 + VAT**

SPECIAL OFFER £75 ex. VAT

32 BIT SCSI II CARD

UK's most popular Acorn SCSI II Interface for Acorn Risc PC. 32 bit data transfer mode, Direct Memory Access and Soft Configurable Logic. New software update for Acorn World Show. **Normally £169.36 + VAT**

£144 ex. VAT

STEREO SPEAKERS

Labtec high quality 10 watt stereo speakers. Frequency response 60-1500Hz. Ideal for Computer and Hi-Fi use including mains adaptor. **Normally £37.50 + VAT**

£25 ex. VAT

ORDER FORM

Cumana Limited, Pines Trading Estate,
Broad Street, Guildford, Surrey, GU3 3BH
Tel: 01483 503121 • Fax: 01483 451371

Product Description	Price Ex VAT	QTY	Total Price

*DELIVERY £3.50 for goods up to £100 £6.00 for Goods £100+ Delivery to mainland UK only	Total Costs of Goods Ex VAT	
	Delivery/insurance/packing*	
	Total Cost of Goods Ex VAT	
	Total Costs of Goods Inc VAT	

NAME: ____________________ TEL: __________

ADDRESS: ____________________

____________________ POSTCODE: __________

❑ I enclose a cheque made payable to Cumana Limited
❑ Please debit my Access/Visa/Mastercard

Card No. ________________ Card expiry date __________

Cardholder's signature ____________________

CUMANA

TELEPHONE SALES HOTLINE: 01483 503121

Cumana reservers the right to alter price and specification at any time. Offers are subject to stock and availability. E&OE

Pines Trading Estate, Broad Street, Guildford, Surrey, GU3 3BH. Fax: 01483 451371

The Big Picture

by Longman Logotron

***THE** Big Picture* is Longman Logotron's new 24-bit painting package, and *Acorn User* brings you an exclusive demo of the software on its cover disc. *The Big Picture* will run on any machine with RISC OS 3.1, although to get the full benefit of some of its features you will need to run it in a 32,000 or 16-million colour mode.

Details of how to use *The Big Picture* are provided in a *ReadMe* file with the program, but getting started is fairly easy. First, copy the program out of the archive on to your hard drive (or a high density floppy disc). In particular, make sure you have a copy of *!Scrap* on your hard disc, rather than trying to use the one in the archive. You may then need to reset the machine.

Run *The Big Picture*; it will install an icon on the icon bar. Drag the file *Painting* to the icon and it will be loaded into *The Big Picture*. A window similar to the one in figure 1 will open, with a four-icon tool pane at the left. The top-left icon is a transparency adjuster; this will only be active in 32000, 16-million and 256-greyscale colour modes and adjusts the transparency of the tool being used. The other three icons open the three tool bars shown in figure 2. If they are clicked with Adjust, the tool bar is opened in a new window, if clicked with Select, the tool bar opens as an extension of the four-icon pane.

These icons provide a comprehensive set of tools for manipulating the image – the best thing to do is to play around and experiment. Further image processing options are available from the menu opened by clicking with Menu over an image.

The Big Picture provides a powerful way of using parts of pictures as motifs which can be painted onto a picture directly as repeated patterns or as textures (again, textures only work in more highly-coloured modes). A number of these are provided, but any part of an existing picture can be cut out as a motif and sprites can also be loaded as motifs.

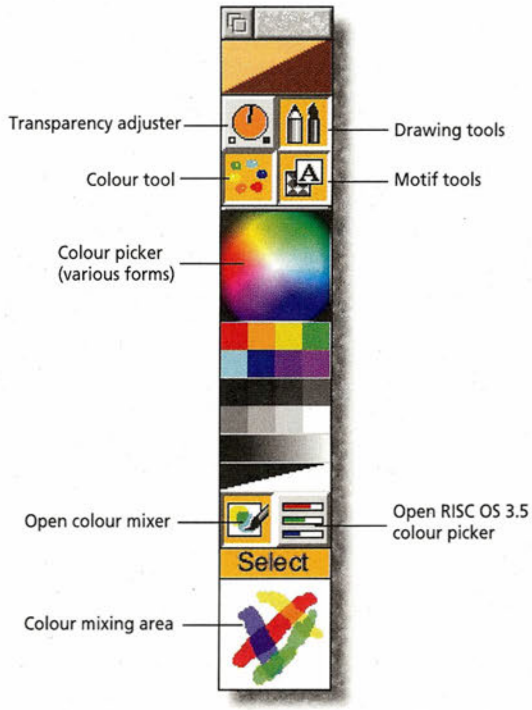
This version of *The Big Picture* has a number of features of the main program disabled. It will not save or print, as is usual with demos, and also times out after a period of use. The full version will handle a number of different file types – JPEG, sprite, TIFF, GIF, Clear, Photo CD, *Draw* and *ArtWorks* – but this version will only load JPEG, sprite and *Draw* files. The full version also has a virtual memory system which is not present in the demo.

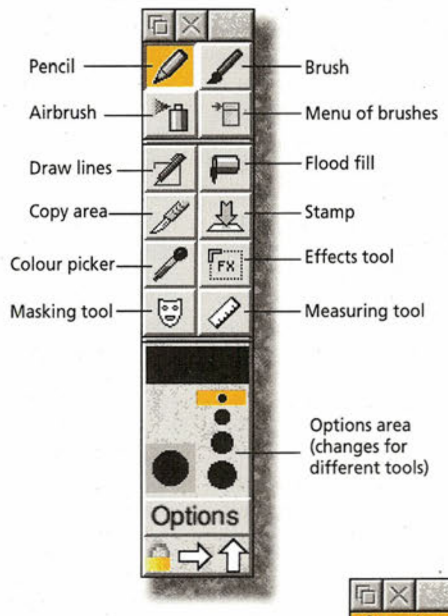
The full version of *The Big Picture* normally costs £69 + VAT, but if you send the cover disc 1 from this magazine to Longman Logotron you will be able to claim a 20 per cent discount exclusive to *Acorn User* readers. If you already have Longman's earlier painting package *Revelation* you can claim a 50 per cent discount off the full £69 + VAT price. Details of site licences for schools are given in the *ReadMe* file on the disc.

Longman Logotron
Tel: (01223) 425558



Figure 1 – the *Painting* file loaded into *The Big Picture*.





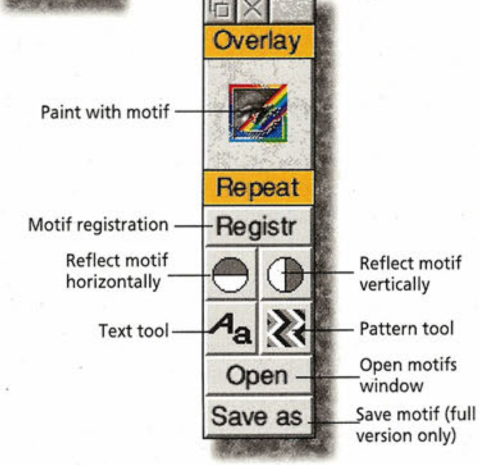


Figure 2 – *The Big Picture's* three tool boxes. Note that these may look slightly different depending upon which mode you are in and which tool you are using.

Spobbleoid Fantasy

by The Fourth Dimension

ONE of the surprise game hits of 1994 concerned the adventures of a small mechanical orange with the unlikely name of Spobbleoid. This game followed a long tradition of Acorn 'sliding block puzzle' games where a small, cute character beetles about the screen moving blocks around, collecting goodies and avoiding monsters. Now the followup – *Spobbleoid Fantasy* – has been released, and *Acorn User* has an exclusive demo on its cover disc.

Like all such puzzles, the game's not as simple as it looks. It's all too easy to slide a block irrevocably over one of the pieces of fruit that you're trying to pick up, or to arrange a set of blocks so that you can't move any of them. On later levels you get blocks which will only slide in a certain direction, blocks which need a key before they will move and – worst of all – blocks which become fixed after a short period of time. Run the *Help!* application in the archive for details of what the various blocks you will encounter do and how to recognise them.



If the game is complicated, the controls aren't. You move Spobbleoid using the standard Z, X ' and / keys, and push blocks using Return (a joystick can also be used on the A3010). To push a block, stand at one side of it and move towards it holding down Return; the block will zip off at high speed, stopping only when it encounters another object. If you are lucky, you can squash monsters this way for extra points – on some levels of the full game you can only complete the level by killing all the monsters on that level.

The full version of *Spobbleold Fantasy* – which includes 60 more screens, passwords to skip levels, and a game designer so that you can create your own levels – is available from The Fourth Dimension for £29.95 + VAT.

The Fourth Dimension
Tel: 0114-276 9950

Regular items

Various authors

THERE'S a host of useful programs hidden in this section of the cover disc, tying in with features in the magazine:

• C tutorial: The *C* directory has a short program demonstrating how to make simple SWI calls from C. All the program actually does is to return the coordinates of the mouse when Select is pressed, but it shows all the associated clutter that goes with making SWI calls from C.

• Comms: The *SerTest* program is a small utility by Acorn comms guru Hugo Feinnes to test the connection between your computer and your modem. The *ArcBBSList* is a list of Bulletin Boards run on Acorn machines with international phone numbers, Sysops and details of connection speed. The list was compiled by Steve Pursey, Sysop of Arctic BBS.

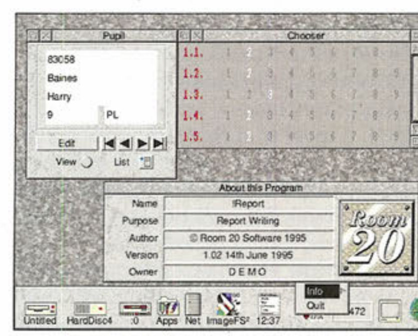
• Education: This directory contains a number of items. First up is a CSV file giving names and phone numbers of all the Acorn Education Agents, listed alphabetically by county or Local Education Authority. There are also two on-line manuals created using *Inform* from iSV Products – see the network page for more details. If you have *My_World2* from SEMERC then you'll want to look at Dave Walsh's support pack for the program. This is aimed at helping a child who wants to present his or her maths work neatly, but is unable to master pencil control.

Lastly, there is a demo version of Room 20 Software's *Report* software for writing reports; full instructions are given in the *!ReadMe* file with the program. *Report* simplifies the task of preparing reports for pupils, taking information either from the school administration system or from data typed in by you. The demo version allows you to compile example reports but not to save, and does not include the support applications *OMRPrint* and *ReportEd* which come with the full version.

An article comparing the various report-writing packages for the Acorn will appear next issue.

• Run the RISC: This contains a set of BASIC routines for using the I²C interface which Mike Cook explains how to design in his article. There is also a full-blown *IIC_Mon* program which monitors the signals from the I²C interface.

• *INFO: This has the usual set of utilities, graphical oddities and programming illustrations which are all described in glorious detail in the *INFO section of the magazine.



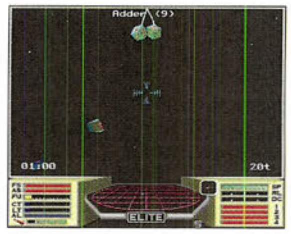
Try out Room 20 Software's report-writing program *Report* with the demo version on the cover disc.

Elite utilities

by Chris Davis, Ben Dooks and Andrew Clover

INCOMING message:
It has come to the attention of GalCop that some unauthorised Cobra upgrades have recently been distributed.

The first of these upgrades, *EliteEdit* by Chris Davis, allows a commander to alter his central records maintained by the GalCop computer. Not only can commanders obtain extra money and kill rating, they can also alter their criminal records and even change the equipment on their ships; a task which should normally only be undertaken by skilled GalTec technicians. Missions – normally only awarded to hard-working commanders – can now be triggered at will, causing severe chaos at Galactic Mission Control.



Needless to say, GalCop frowns upon the use of this program, and will prosecute anyone it catches using it.

The second upgrade is called *EliteExt* and is written by Ben Dooks and Andrew Clover who claim to come from an outfit called 'Doggysoft' (GalCop assumes this is a pseudonym). This will allow commanders to identify any ships crossing their sights, and also provides an on-board clock and cargo indicator. Free with the upgrade is a complimentary pair of fur-covered cubical random number generating devices (fluffy dice) and a rear-view sticker.

GalCop frowns upon the use of fluffy dice, and will confiscate any found in your possession.

Disc information

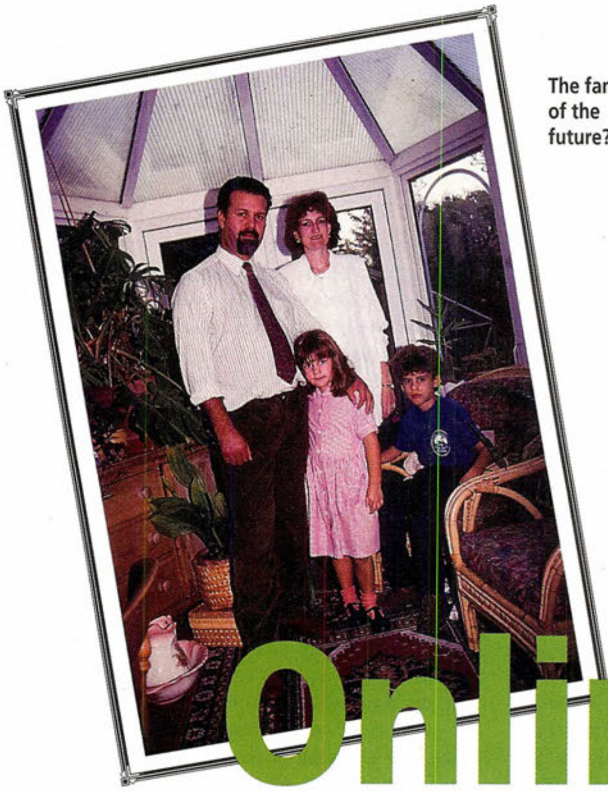
THE software on this disc has been compressed using *ArcFS 2* from VTi. Unlike on previous discs, these are straightforward archives which are opened by running a copy of *ArcFS* and double-clicking on the archive to open it. There is a copy of *ArcFS* on disc one (and on previous cover discs). If you use disc two first, you will need to have seen a copy of *ArcFS*, otherwise the archive will not open; simply open disc one and try again.

Most software will run straight from the archive, but some programs (*The Big Picture* is an example) need to be copied out of the archive before being run, uncompressing them in the process.

If your disc is faulty, you should test whether it will verify by clicking with Menu on the floppy drive icon and choosing 'Verify' from the menu. You should then either return it to TIB, TIB House, 11 Edward Street, Bradford, Yorkshire BD4 7BH (if it does not verify or is damaged) or to the editorial office at *Acorn User* (if it verifies).

The *Acorn User* cover disc has been checked for viruses using *Killer* version 2.101 from Pineapple Software.





The family of the future?

David Matthewman and Karen Peach went to Cambridge to meet a family who have been living for the past month with an Online Media set-top box in their house.

At home with Online Media

'What shall I watch on TV tonight?' That simple question is about to acquire some real meaning. Up until now, what you watched on TV has largely been dictated by what the TV companies deigned to show that night. Occasionally there was a clash, for which video recorders were tailor-made, but even with the explosion of channels brought by satellite and cable, it can still be a case of finding the least boring program to watch. One of the problems of a subscription service like satellite is that if you're paying monthly instalments for it, you tend to feel obliged to watch at least something every night, however dull it might be, just to get your money's worth. Sad but true.

How much better it would be if you could sit down and think 'what do I *want* to watch tonight?', press a button, and up the program comes. Of course, if you have the technology to do that, you're also likely to have the technology to offer a lot of other services as well, such as home banking and shopping, downloadable software and a wealth of information about local events.

Enter Online Media

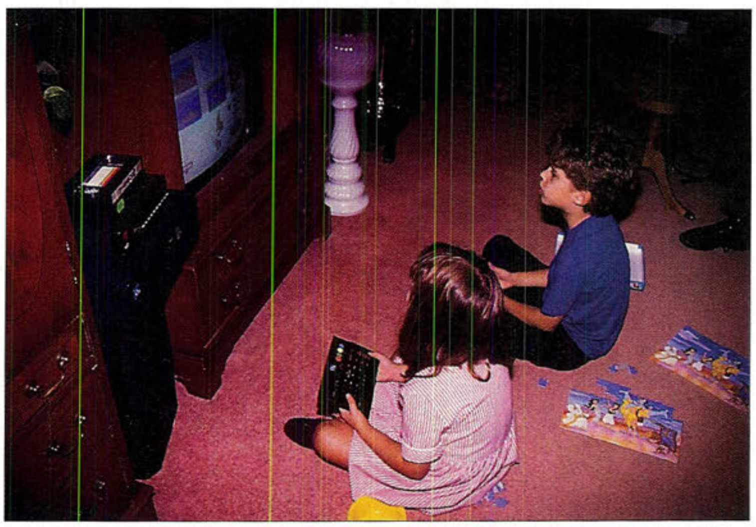
Just over a year ago, Acorn Computers announced that it was setting up a new division to look at iTV (interactive TV). Much of Acorn's technology is suited to the task, not least its experience with driving low-resolution monitors in schools and rendering text well using anti-aliasing.

The ARM chip's low power consumption is also important; the last thing any user of a set-top box wants is a noisy fan cooling down the processor. The Online Media division of Acorn – with its partners SJ Research, ATM Ltd, LCL and Cambridge Cable – decided to set up a service structure unlike that in other tests.

Rather than attempting to provide all the services itself, Online Media concentrated on providing the infrastructure around which the services are based.

The services are provided by what Online Media terms a 'service nursery'; a collection of companies all using the Online Media infrastructure to deliver their own services. As Kevin Coleman explains:

'Online Media does not know about running banks, so it would be silly for us to provide an online banking service ourselves. The people at NatWest are the experts, but they themselves don't have any idea about providing an iTV network. By putting our expertise together, we can offer a combined service that's better than if either of us attempted it on our own.'



Harriet learns about the animal kingdom by attempting to match each animal to its respective nest, hive or sett. She is holding the Online Media handset; the set-top box itself is sitting on the speaker to the left, with the Cambridge Cable decoder sitting on it.

Trial services

The service is still finding its feet. One of the advantages of the service nursery is that all the companies can sit round and discuss different approaches and solutions; it gets a number of potential rivals sitting round a table co-operating. The companies involved at this stage are as follows:

- Acorn Computers, offering educational services and software. Software written to run under RISC OS doesn't need much altering for a set-top box based around an ARM7500 chip; the main hurdle is the user interface.
- Anglia Multimedia, where Peter Stibbons has put together a package offering both its own CD-ROM multimedia and a range of local TV programs.
- The BBC, offering TV news bulletins and a wealth of archive material from BBC Radio.
- BMP DDB Needham, a large advertising agency who is working with its clients to produce interactive advertising.
- NOP, the opinion poll specialist who is handling the user feedback and looking at the implications of the new technology for market research.
- Tesco, who is soon hoping to offer home shopping services to customers.
- Nat West, providing a range of home banking services.
- The ITC, considering the legal implications of the new technology. Particularly in the area of home banking, legislation has yet to catch up, and a number of useful services cannot legally be offered at the moment.
- ITN providing News At Ten.



The Online Media system is very easy to use; Joe claims that it took Alex all of five seconds to learn.

• The Post Office who is looking both at co-ordinating deliveries for some of the other providers and offering some of its over-the-counter services online.

So much for the theory. Most of the above services are already being offered to just over 100 selected homes and schools in the Cambridge area, delivered via the Cambridge Cable fibre-optic network. At the beginning of September, Joe, Claire, Alex and Harriet signed up for the trial, and we spent an evening with them finding out what they thought of Acorn's technology for the future.

A night in – future style

It's no surprise to find out that the service is a big hit with the two children, Alex and Harriet. They sit in front of the screen, sharing the controller between them, working through some of the educational software and videos available. Alex proudly shows me some of his favourites, one in particular being *Calculating Kangaroo*. This features the exploits of an animated kangaroo and other animals as they explain addition, subtraction and so on.

Like all the best programmes of this nature, *Calculating Kangaroo* is both informative and fun. What makes the Online Media presentation of it so good is that Alex can call up the programme any time he likes, rather than being tied to when it's on in the schedules.

'If the kids want to watch *Calculating Kangaroo* at 7am on Saturday morning then they can,' explains Alex's father Joe, 'and they do. I've also seen Alex bring a friend home from school just to show him the set-top box.'

Alex passes the control to his younger sister Harriet who loads up some early learning software; she's learning to read. Each member of the family has an individual PIN number so that parents can control access to areas of the service that they'd rather keep their children away from.

Unlike *Calculating Kangaroo* which was an educational video, Harriet has chosen some interactive software where she has to construct a sentence describing the object; in this case 'I am the big wolf'. A selection of words is displayed and, with a little prompting, Harriet chooses the right words by using the buttons on the remote control.

Children's attention spans are notoriously short, but with the Online Media box they can change to something new when they get bored.

In general, Joe believes that the set-top box will make for fewer 'couch potatoes' as it puts people in charge of their viewing habits.

'I've noticed that sometimes when there are a couple things that you want to watch on TV you can spend all evening slumped in front of the box waiting for them to come on,' he says.

'With this system you can watch what you want straight away, and you haven't wasted all evening waiting for it to come on.'

You can catch up on things that you've missed, too. Joe was out when the last night of the proms was broadcast, but thanks to the BBC Radio collection he can just call it up and it's replayed in glorious stereo through his hi-fi.

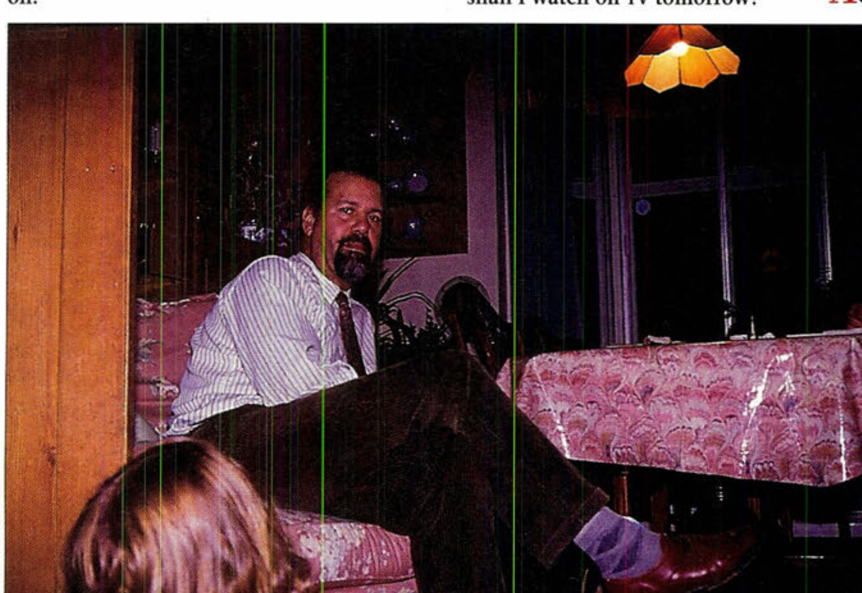
In fact, the BBC Radio collection is one of the better resources on Online Media at the moment: everything from *The Goon Show* to *The Hitch Hiker's Guide to the Galaxy* and from John Peel's Saturday sessions to *File on Four* is available for download.

Other areas are still to come online. Home shopping is one where the details are still being worked out. Claire thinks that she'd use this a lot, but Joe isn't sure that it'll catch on: 'Shopping's a social thing,' he explains. 'I don't like shopping itself but the act of getting out of the house, going down the shops, meeting people you know – I can't see the set-top box replacing all this.'

At the moment, the service is still very much in its experimental stage. The range of programmes on offer is small, but the potential is there. The family agreed that when more films, documentaries and coverage of sports events became available – as they surely would in any commercial system – the service would really start to take off.

'Just using the system makes me think of all the possible things you could do with it,' Joe enthuses. 'It's very pro-active, and I keep coming up with ideas – train timetables, holiday programmes, playing chess with someone else on the system – which you could use it for.'

If the experience of Joe, Claire, Alex and Harriet is anything to go by then 'What shall I watch on TV tonight?' could be a very different question from 'What shall I watch on TV tomorrow?' AU



Photos: REGAN

'What interests me at the moment is mostly the news and radio; I like being able to watch the nine o'clock news even when I get in late.'

KIMBERLEY COMPUTER SERVICES

Dept ACU, 73 Chapel Street, LEIGH, Lancashire, WN7 2DA.

01942 677777 8 Lines

Fax 01942 672300

email Sales@kcsprem.demon.co.uk

Access VISA SWITCH

Payment by Switch/Visa/Delta/Cheque or Postal Order Welcomed.

Education Specialists

Education & Health Authority orders Accepted.

Trade Enquiries Welcome

TEACHERS

KCS have always offered great discounts to the Education sector.

We have a vast range of products available, please ask for our "Teacher Pack", which includes various discounts for teachers and Schools.

CLAN MEMBERS

We currently offer substantial discounts to all Clan members. It is not possible to list all the special prices here, ask for our "Clan price list" available on disk.

Offer of the Month

170Mb 2.5" IDE Hard Drive

Suitable for A3010/3020/A4

£100 & Vat (inc Cable) Limited Stock

£169 & Vat with A3010 Interface

FLATBED SCANNERS



	Ex Vat		Inc Vat
2400 dpi Flatbed Colour A4	£425.00	e	£499.38
1200 dpi Flatbed Colour A4	£349.00	e	£410.07
Transparency Adaptor	£210.00	e	£246.75
SCSI Interface (State Machine)	£99.00	d	£116.33

Full COLOUR Flatbed Scanners at Low Cost.

Upto 2400 Dots Per Inch Scaning capability (PC) and 600 Dpi using Acorn Software. Both Acorn and PC Scanning software supplied. Sample scans available - Send SAE & Disk.

PRINTERS

	Ex Vat		Inc Vat
Citizen ABC 24 Pin Colour	£135.00	d	£158.63
HP Deskjet Portable	£120.00	d	£141.00
HP Deskjet 320/ASF/Colour Kit	£225.00	e	£264.38
HP Deskjet 540C	£ 215.00	e	£252.63
HP Deskjet 660C	£325.00	e	£381.88
Canon BJC600	£345.00	e	£405.38
Canon BJC4000	£235.00	e	£276.13
Canon BJ200ex	£195.00	e	£229.13
Canon BJ230ex	£ POA	e	£ POA
Canon BJ10sx	£159.00	d	£186.83
Epson Stylus 800+	£189.00	e	£222.08
Epson Stylus Colour	£365.00	e	£428.88
HP Laserjet 4L	£385.00	e	£452.38
All printers supplied with leads			
Turbo Drivers HP	£38.00	b	£44.65
Turbo Drivers Canon	£38.00	b	£44.65
Turbo Drivers Epson	£38.00	b	£44.65
Acorn 1.28c Printer Drivers	F.O.C.	a	F.O.C. With Printer

DISKETTES & DISK BOXES

		Ex Vat		Inc Vat
100 Capacity Lockable with Catch & Dividers	**** BEST BUY ****	£2.98	b	£3.50
50 Capacity Lockable & Dividers		£2.55	b	£3.00
20 Capacity Flip Top Smoke Colour		£1.70	b	£2.00
15 Capacity Novelty Step Cube		£2.55	b	£3.00
12 Capacity Flip Top Clear		£0.85	b	£1.00
10 Capacity "Trendy" Flip Top (Black or Mint)		£1.70	b	£2.00
1 Capacity Flip Top Clear		£0.50	b	£0.59
DSDD 3.5" Diskettes	1-50	£0.30	b	£0.35
DSDD 3.5" Diskettes	51-100	£0.28	c	£0.33
DSDD 3.5" Diskettes	101+	£0.27	d	£0.32
DSHD 3.5" Diskettes 1.44Mb	1-50	£0.42	b	£0.49
DSHD 3.5" Diskettes 1.44Mb	51-100	£0.40	c	£0.47
DSHD 3.5" Diskettes 1.44Mb	101-200	£0.38	d	£0.45
DSHD 3.5" Diskettes 1.44Mb	201+	£0.36	d	£0.43



Available as FORMATTED PC DOS 1.44Mb if Required, at no extra cost! Please State.

SPEAKERS

	Ex Vat		Inc Vat
ZY-FI Amplified 8 Watts RMS, Ideal for Acorn or PC	£30.00	d	£35.25
SOUNDWave 10, **80W** Sheilded Amplified Speakers for Acorn or PC	£59.00	d	£69.32
MICROPHONE, with 3.5mm Jack Plug	£4.25	b	£4.99
Clip On Microphone with 3.5mm Jack Plug	£5.90	a	£6.93

DATA SWITCH BOXES

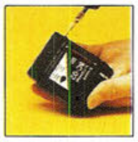
	Ex Vat		Inc Vat
2 Printers - 1 Computer Centronics to Centronics	£11.75	b	£13.81
2 Computers - 1 Printer Centronics to Centronics	£11.75	b	£13.81
4 Printers - 1 Computer Centronics to Centronics	£15.95	b	£18.74
4 Computers - 1 Printer Centronics to Centronics	£15.95	b	£18.74
4 Computers - 1 Monitor VGA (15 Pin HD (F)) & KB (5 Pin Din)	£18.00	b	£21.15
2 Computers - 1 Monitor EGA (9 Pin D (F)) & KB (5 Pin)	£17.00	b	£19.97
2 - 1 Way Serial 25 Pin D Type Female to 25 Pin D Type Female	£10.75	b	£12.63
4 - 1 Way Serial 25 Pin D Type Female to 25 Pin D Type Female	£14.95	b	£17.57
2 Scart - 1 Scart TV Standard Euroscart to Euroscart	£11.75	b	£13.81



INKJET REFILLS









Inkjet Refills are an economical method of re-charging your existing print cartridge.

Premier Inks produce a complete range of tried & tested refills that are suitable for almost every inkjet printer on the market. The **Jet Black** refill is much darker than most original cartridges and often dries faster with less overspray, so the output looks clearer than before.

The Refills are packed in convenient ready to use one way syringes and come complete with a safety nozzle and FULL easy to use instructions covering 10 different types of the most popular cartridges. It takes little more than a couple of minutes to refill a print cartridge (whatever the make), and generally saves at least 50% off the cost of a new cartridge.

Using Refills with disposable head print cartridges in no way affects the warranty of your printer as the cartridge is considered a separate item. Also by using the PREMIER range of refills you will not lose out on the quality of print, in fact in most cases using these particular refills can improve the quality of print.

If you are unsure about using Inkjet Refills, call and speak to our staff who will be happy to send you a sample of the print out quality and a set of instructions, so that you can see the results and how easy they are to use, before you decide to buy.



	Ex Vat		Inc Vat
Single Refill Any Colour	£5.95	a	£6.99
Twin Refill Any Colour	£11.05	a	£12.99
Quad (Four) Refill Black Only	£19.57	a	£22.99
Tri-Colour Refill C/M & Y	£17.01	a	£19.99
Bulk 125ml Refill Kit Any Colour	£21.27	a	£24.99
Bulk 250ml Refill Kit C/M/Y or Black	£38.29	b	£44.99
Bulk 500ml Refill Kit Black Only	£59.57	b	£69.99
1ml Head Recovery Kit	£3.40	a	£4.00
125ml Cartridge Cleaning Kit	£3.40	a	£4.00
400ml Cartridge Cleaning Kit	£8.50	b	£9.99
TDQ Adaptor for Thinkjet Cartridge	£2.55	a	£3.00

COLOURS AVAILABLE FROM PREMIER INKS

Jet Black, Cyan, Magenta, Yellow, Brown, Dk Green, Lt Green, Dk Blue, Dk Red, Lt Red, Gold, Silver

Premier Inks

"The Professional Choice"

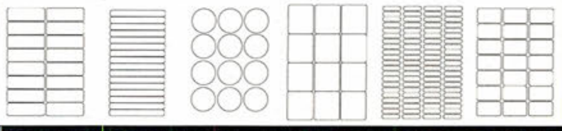
Specialist Laser & Inkjet Labels

AVERY®

Templates for Avery Labels available for Impression. £5.00 or Free with 3 Packs of Labels.



		Ex Vat		Inc Vat
INKJET White				
J8160M 63.5x38.1mm (21 lps, 40 shts)	Addressing Labels	£11.00	b	£12.93
J8161M 63.5x46.6mm (18 lps, 40 shts)	Addressing Labels	£11.00	b	£12.93
J8162M 99.1x34mm (16 lps, 40 shts)	Addressing Labels	£11.00	b	£12.93
J8163M 99.1x38.1mm (14 lps, 40 shts)	Addressing Labels	£11.00	b	£12.93
J8165M 99.1x67.7mm (8 lps, 40 shts)	Parcelling Labels	£11.00	b	£12.93
J8666M 70x52mm (10 lps, 25 shts)	3.5" Disk, Face Only	£11.00	b	£12.93
J8651M 38.1x21.2mm (65 lps, 25 shts)	Mini Addresssing Labels	£11.00	b	£12.93
INKJET White *For COLOUR Printing!*				
J8365 99.1x67.7mm (8 lps, 25 shts)	Parcelling Labels	£18.00	b	£21.15
J8363 99.1x38.1mm (14 lps, 25 shts)	Addressing Labels	£18.00	b	£21.15
J8362 99.1x34mm (16 lps, 25 shts)	Addressing Labels	£18.00	b	£21.15
J8360 63.5x38.1mm (21 lps, 25 shts)	Addressing Labels	£18.00	b	£21.15
INKJET Clear				
J8560M 63.5x38.1mm (21 lps, 40 shts)	Addressing Labels	£18.50	b	£21.74
J8562M 99.1x34mm (16 lps, 40 shts)	Addressing Labels	£18.50	b	£21.74
J8563M 99.1x38.1mm (14 lps, 40 shts)	Addressing Labels	£18.50	b	£21.74
J8565M 99.1x67.7mm (8 lps, 40 shts)	Parcelling Labels	£18.50	b	£21.74
LASER				
L7000 Mixed Trial Pack	Various Sample Sheets	£5.00	a	£5.88
L7159 64x34mm (24 lps, 100 shts)	Addressing Labels	£20.50	b	£24.09
L7160 63.5x38.1mm (21 lps, 100 shts)	Addressing Labels	£20.50	b	£24.09
L7160M 63.5x38.1mm (21 lps, 40 shts)	Addressing Labels	£11.00	b	£12.93
L7160E 63.5x38.1mm (21 lps, 250 shts)	Addressing Labels	£45.00	d	£52.88
L7161 63.5x46.6mm (18 lps, 100 shts)	Addressing Labels	£20.50	b	£24.09
L7162 99.1x34mm (16 lps, 100 shts)	Addressing Labels	£20.50	b	£24.09
L7162M 99.1x34mm (16 lps, 40 shts)	Addressing Labels	£11.00	b	£12.93
L7163 99.1x38.1mm (14 lps, 100 shts)	Addressing Labels	£20.50	b	£24.09
L7163M 99.1x38.1mm (14 lps, 40 shts)	Addressing Labels	£11.00	b	£12.93
L7163S 99.1x38.1mm (14 lps, 25 shts)	Addressing Labels	£8.00	b	£9.40
L7164 63.5x72mm (12 lps, 100 shts)	Addressing Labels	£20.50	b	£24.09
L7165 99.1x67.7mm (8 lps, 100 shts)	Parcelling Labels	£20.50	b	£24.09
L7165M 99.1x67.7mm (8 lps, 40 shts)	Parcelling Labels	£11.00	b	£12.93
L7165E 99.1x67.7mm (8 lps, 250 shts)	Parcelling Labels	£45.00	d	£52.88
L7166 99.1x93.1mm (6 lps, 100 shts)	Parcelling Labels	£20.50	b	£24.09
L7167 199.6x289.1mm (1 lps, 100 shts)	Shipping Label	£20.50	b	£24.09
L7168 199.6x143.5mm (2 lps, 100 shts)	Shipping Labels	£20.50	b	£24.09
L7169 139x99.1mm (4 lps, 100 shts)	Parcelling Labels	£20.50	b	£24.09
L7173 99.06x57mm (10 lps, 100 shts)	Shipping Labels	£20.50	b	£24.09
L7263 99.1x38.1mm (14 lps, 25 shts)	Addressing Florescent Yellow	£11.00	b	£12.93
L7363 99.1x38.1mm (14 lps, 25 shts)	Addressing Florescent Pink	£11.00	b	£12.93
L7630 63.5 Dia (12 lps, 50 shts)	White Circular Labels	£13.00	b	£15.28
L7651 38.1x21.2mm (65 lps, 25 shts)	Mini Addressing Labels	£8.00	b	£9.40
L7651H 38.1x21.2mm (65 lps, 100 shts)	Mini Addressing Labels	£20.50	b	£24.09
L7654 76.2x46.4mm (12 lps, 14 shts)	Video Spine & Face Labels	£11.00	b	£12.93
L7671 76.2x46.4mm (12 lps, 25 shts)	Video Face Labels	£11.00	b	£12.93
L7674 145x17mm (16 lps, 25 shts)	Video Spine Labels	£11.00	b	£12.93
L7655 89x42mm (12 lps, 25 shts)	Audio Cassette Labels	£11.00	b	£12.93
L7656 46x11.11mm (84 lps, 25 shts)	35mm Slide Labels	£11.00	b	£12.93
L7664 70x71.9mm (8 lps, 25 shts)	3.5" Diskette Wrap Over	£11.00	b	£12.93
L7664H 70x71.9mm (8 lps, 100 shts)	3.5" Diskette Wrap Over	£20.50	b	£24.09
L7665 72x21.15mm (24 lps, 25 shts)	Mini Data Cartridge Labels	£11.00	b	£12.93
L7666 70x52mm (10 lps, 25 shts)	3.5" Diskette Face Only	£11.00	b	£12.93
L7667 133x29.61mm (9 lps, 25 shts)	Standard Data Cartridge	£11.00	b	£12.93
L7670 63.5 Dia (12 lps, 25 shts) FY	Florescent Yellow Circular	£11.50	b	£13.51
L7680 38.1x21.2mm (65 lps, 25 shts)	Mini Addressing Gold	£17.00	b	£19.98
L7690 38.1x21.2mm (65 lps, 25 shts)	Min Addressing Silver	£17.00	b	£19.98
L7170 134x11mm (24 lps, 25 shts)	Eurofolio/Filing Labels	£11.00	b	£12.93
L7171 200x60mm (4 lps, 25 shts)	Lever Arch Labels	£11.00	b	£12.93
L7172 100x30mm (16 lps, 25 shts)	Ring Binder Labels	£11.00	b	£12.93
LASER Mini-Sheets				
L2186 69.9x50.8mm (4 lps, 40 shts)	3.5" Diskette Face Only	£7.50	b	£8.81
L2163 101.6x50.8mm (4 lps, 40 shts)	Parcelling Labels	£7.50	b	£8.81
L2162 101.6x33.8mm (6 lps, 40 shts)	Addressing Labels	£7.50	b	£8.81
L2160 66.8x25.4mm (8 lps, 40 shts)	Addressing Labels	£7.50	b	£8.81
L2164 50x14mm (28 lps, 40 shts)	Suspension File	£7.50	b	£8.81
LASER Clear				
L7551 38.1x21.2mm (65 lps, 25 shts)	Mini Addressing Transparent	£15.00	b	£17.63
L7562 99.1x33.9mm (16 lps, 50 shts)	Addressing Transparent	£25.00	b	£29.38
L7562S 99.1x33.9mm (16 lps, 25 shts)	Addressing Transparent	£15.00	b	£17.63
L7563 99.1x38.1mm (14 lps, 50 shts)	Addressing Transparent	£25.00	b	£29.38
L7563S 99.1x38.1mm (14 lps, 25 shts)	Addressing Transparent	£15.00	b	£17.63
L7565 99.1x67.7mm (8 lps, 50 shts)	Parcelling Transparent	£25.00	b	£29.38
L7575S 99.1x67.7mm (8 lps, 25 shts)	Parcelling Transparent	£15.00	b	£17.63
LASER Business Cards				
L7413 90x50.8mm (10 lps, 25 shts)	Business Cards, Micro Perforated	£15.00	b	£17.63
LASER Name Badges				
L7418K 86.6x55.5mm (8 lps, 3 shts, 10 Holders)	Name Badge & Holders	£17.00	b	£19.98
L7418 86.5x55.5mm (8 lps, 25 shts) Refill Pk	Name Badge	£13.50	b	£15.86
LASER Postcards				
L7421 139.37x97.29mm (4 lps, 25 shts)	Postcards	£16.00	b	£18.80



INKJET CARTRIDGES

	Ex Vat		Inc Vat
HP51626A DJ Double Life	£17.02	a	£20.00
HP51633a DJ Portable Black	£15.25	a	£17.92
HP51625A Tri Colour Cartridge	£20.85	a	£24.50
HP51640A HP1200c Black	£17.00	a	£19.98
HP51640? HP1200c C/M or Y	£20.20	a	£23.74
HP51604A Thinkjet/Quietjet	£12.00	a	£14.10
HP51639A Paintjet XL Black	£14.95	a	£17.57
HP51606C Paintjet Tri Colour	£20.20	a	£23.74
HP51606A Paintjet Black	£22.20	a	£26.09
HP51606R Paintjet Red	£23.00	a	£27.03
HP51606B Paintjet Blue	£23.00	a	£27.03
HP51606Y Paintjet Yellow	£23.00	a	£27.03
Epson Stylus 800 Black	£8.00	a	£9.40
Epson Stylus Colour - Colour	£25.00	a	£29.38
Epson Stylus Colour - Black	£12.00	a	£14.10
Olivetti JP150 Black	£14.60	a	£17.16
Canon BC-01 Black	£14.00	a	£16.45
Canon BC-02 Black	£15.00	a	£17.63
Canon BJC600 Black High Cap	£8.00	a	£9.40
Canon BJC600 C/M or Y	£6.20	a	£7.29
Canon BJC4000 BC20 Black	£21.00	a	£24.68
Canon BJC4000 BCI21 Black	£7.00	a	£8.23
Canon BJC4000 BCI21 Colour	£12.00	a	£14.10
Canon JI-20c Integrex Colour	£18.00	a	£21.15
Canon JI-25B Integrex Black	£10.02	a	£11.77
Canon BJ300/330 Black	£11.50	a	£13.51
Canon BJC800 Black	£13.50	a	£15.86
Canon BJC800 C/M or Y	£17.00	a	£19.98

DUST COVERS

	Ex Vat		Inc Vat
PC 2 Piece Dust Cover	£6.00	a	£7.05
PC Mini Tower Dust Cover	£3.56	a	£4.18
PC 14" Universal Monitor Cover	£3.56	a	£4.18
PC 102 Key UK Keyboard Cover	£3.56	a	£4.18
Acorn A5000 All in One Dust Cover	£6.00	a	£7.05
Acorn A4000 All in One Dust Cover	£6.00	a	£7.05
Acorn A3010/3020 Dust Cover	£4.55	a	£5.35
Risc PC (1 Stack) Dust Cover	£6.00	a	£7.05
Small 80 Column Printer Cover	£3.56	a	£4.18
Large 132 Column Printer Cover	£6.40	a	£7.52
HP Deskjet 500/550/560 Cover	£3.56	a	£4.18
Canon BJ10 Dust Cover	£3.56	a	£4.18
Canon BJ200 Dust Cover	£4.56	a	£5.36
Canon BJC600 Dust Cover	£4.56	a	£5.36

LASER TONER

	Ex Vat		Inc Vat
Canon LBP-8 IV	£70.00	d	£82.25
Canon LBP-8 III	£59.00	d	£69.33
Canon LBP-4U	£52.00	d	£61.10
HP Laserjet III/IIID	£52.00	d	£61.10
HP Laserjet IIIP/IIP	£48.00	d	£56.40
HP Laserjet IIISI/4SI	£95.00	d	£111.62
HP Laserjet 4/4M/4MP/4P	£70.00	d	£82.25
HP Laserjet 4L/4ML	£48.00	d	£56.40
Qume Laser Direct (3 Sets)	£99.00	d	£116.33

Upgrades & Repairs

We can Fit any upgrade listed on these pages, or fix most problems while you wait in our showroom. In most cases we don't charge for fitting any of the products we supply.

Low repair costs for Acorn/PC or printers and monitors. Call for Quote.

FREE

Mouse Mat with any order over £20
Quote ref: MMKCS

WINTUNER & INIGUARD

Wintuner is a program that has been designed to get the best speed out of the Windows environment. It is ideal for machines that are underpowered such as the Risc PC with the 486 Card. Fine tunes the Windows environment.

Iniguard is a program which is designed to stop Windows becoming corrupt. A 3 stage recovery program and a master backup of ALL the important Initialisation files and the Autoexec.bat and Config.sys files.
Highly Recommended.

Wintuner & Iniguard	£21.27	a	£24.99

RIBBONS

B=BLACK RIBBON
C=COLOUR RIBBON

			Ex Vat		Inc Vat
Amstrad DMP2000/3000	B	2482RN	£2.80	a	£3.29
Amstrad DMP4000	B	2426RN	£3.66	a	£4.30
Amstrad LQ5000	B	2886DN	£6.10	a	£7.18
Amstrad PCW8256/LQ3500	B	2944DN	£2.85	a	£3.35
Amstrad PCW9512	B	2949FN	£3.38	a	£3.97
Brother M1009/1024/1109/1209	B	2412FN	£3.90	a	£4.58
Brother M1818/1824L/1924L	B	2905DN	£4.88	a	£5.74
Citizen 120D/LSP10/Swift 24/9	B	2939DN	£2.85	a	£3.35
Commodore MPS1220/1230	B	2843RD	£4.50	a	£5.29
Commodore MPS1500/1550	B	2863RDB	£6.75	a	£7.93
Epson LQ100	B	2986RD	£4.10	a	£4.82
Epson LX100	B	2999RD	£3.83	a	£4.50
Epson LQ200/400/500/800/850	B	2477DN	£3.45	a	£4.05
Epson LQ1000/1050/1070/1170	B	2478DN	£4.10	a	£4.82
Epson FX/MX/RX80/FX/LX800	B	2273FN	£2.90	a	£3.41
Epson FX/MX100/FX/MX1000	B	2320FN	£3.36	a	£4.30
Epson LX80/86/90	B	2454FN	£2.12	a	£2.49
Fujitsu DL3300/3400, DX2200	B	2849DN	£3.75	a	£4.41
IBM 4207/4212 Proprinter X24	B	4846FN	£3.88	a	£4.56
Mannesman Tally 80/81	B	2698MS	£3.90	a	£4.58
NEC Pinwriter P220/P2+	B	2844RD	£3.03	a	£3.56
Oki ML182/183/192/193/195	B	2455RN	£3.17	a	£3.72
Oki ML320/321/380/390/391	B	2874RD	£3.32	a	£3.90
Panasonic KX-P1123/1124/1140	B	2904RD	£3.46	a	£4.07
Panasonic KX-P1080/1180/90	B	2905RN	£2.89	a	£3.40
Panasonic KX-P1524/1540/1624	B	2953RD	£4.55	a	£5.35
Panasonic KX-P2123/2124/2180	B	2984RD	£5.75	a	£6.76
Seikosha SL90/92/95/96	B	2920DN	£5.70	a	£6.70
Star LC10/20/100	B	2861FN	£2.29	a	£2.69
Star LC200	B	2954FN	£3.00	a	£3.53
Star LC24-10/20/200	B	2868DN	£2.86	a	£3.36
Star ND/NL/NR/NX10, NB24-10	B	2761DN	£3.85	a	£4.52
Taxan Kaga KP810/815/910/915	B	2223RN	£3.14	a	£3.69
Citizen 224/240/Swift 24-9	C	2964DN	£12.81	a	£15.05
Commodore MPS1500/1550	C	2863RDC	£9.38	a	£11.02
Panasonic KX-P2123/2124/2180	C	2985RD	£10.63	a	£12.49
Star LC10/20/100	C	2869FN	£6.00	a	£7.05
Star LC200	C	2959FN	£9.78	a	£11.49
Star LC24-10/20/200	C	2952DN	£9.63	a	£11.32

Special Offer
Startwrite
Word Processor
£17.02 & Vat

Special Offer
Champions
4 Games in 1
£12.72 & Vat

Special Offer
80watt Speakers
Amplified Mains Powered
£58.00 & Vat

Special Offer
Joystick Controllers
for A3020/4000/5000
£20.00 & Vat

Special Offer
386 PC Cards
for A3020/4000
£99.00 & Vat

Special Offer
Pinpoint
Database Sofware
£39.00 & Vat

All above, while stocks last.

CABLES & ADAPTORS

		Ex Vat		Inc Vat
Mains Lead 3 Pin Moulded 5 amp	Computer or Printer Power Lead	£3.70	a	£4.35
Mains Lead Extension M-F	Computer to Monitor Power Lead	£3.70	a	£4.35
4 Gang Extension	1 Mains Socket converted to 4, Fused	£6.50	b	£7.64
Parallel Printer Cable 1.8M	Normal Printer Cable PC/Acorn/Atari etc	£2.55	a	£3.00
Parallel Printer Cable 3M	Normal Printer Cable PC/Acorn/Atari etc	£4.55	b	£5.35
Parallel Printer Cable 5M	Normal Printer Cable PC/Acorn/Atari etc	£6.50	b	£7.64
Bi-Directional Parallel Printer Cable	Fast Data Transfer Cable	£11.00	a	£12.93
Centronics - Centronics Cable 2M	Switch Box Cable	£4.28	a	£5.03
Centronics - Centronics Cable 3M	Switch Box Cable	£6.50	a	£7.64
Serial Cable 2M 25 Pin M-F	All Pins Connected/Printer Cable	£4.28	a	£5.03
Serial Cable 5M 25 Pin M-F	All Pins Connected/Printer Cable	£8.50	b	£9.99
Laplink Cable 1.5M 25&9F-25&9F	Data Transfer Cable Null Modem (X-Over)	£8.50	a	£9.99
Midi Leads (Pair)	Music Data Transfer Cables 5 Pin Din	£8.00	a	£9.40
Phono Leads (Pair)	2xPhono Transfer/Extension Cable	£3.50	a	£4.11
Phono to Stereo Jack Convertor	3.5mm Stereo Jack to 2xPhono Plugs	£3.00	a	£3.53
VGA/SVGA Monitor Extension Cable 2M	15 Pin HD M-F	£6.50	a	£7.64
Keyboard Extension Cable 2M	Curly 5 Pin Din M-F Standard PC Keyboard	£6.50	a	£7.64
Keyboard Extension Cable 2M PS2	Curly PS2/Risc PC M-F Keyboard Ext	£6.50	a	£7.64
Mouse Extension Cable 2M	9 Pin D Type M-F Extender Cable	£6.50	a	£7.64
Joystick Extension Cable 2M PC	15 Pin D Type M-F Extender Cable	£6.50	a	£7.64
Joystick Splitter	Allows the Use of 2 Joysticks on a PC	£8.50	a	£9.99
A3010/3020/4000/5000 - Scart Lead 1.5M	15 Pin HD D Type to Euroscart (Not Sony)	£8.50	a	£9.99
A3010/3020/4000/5000 - CM8833 MKI	15 Pin HD D Type - 9 Pin	£8.50	a	£9.99
A3010/3020/4000/5000 - CM8833 MKII	15 Pin HD D Type - 9 Pin & Phono Leads	£8.50	a	£9.99
A3010/3020/4000/5000 - AKF17 & AKF30	15 Pin HD D Type - 9 Pin	£8.50	a	£9.99
SCSI 25 Pin D - Centronics	SCSI Interface to External Box/CD or HD	£12.00	b	£14.10
SCSI 50 Way IDC Ribbon Cable 1M	Internal SCSI Cable (Can be Custom made)	£ ASK	a	£ ASK
SCSI Centronics to Centronics 1M	External Daisy Chaining/Switch Box Cable	£14.00	b	£16.45
IDE 40 Way Cable 15" for 2 Hard Drives	Internal for 2x3.5" IDE Hard Drives or CD's	£3.00	a	£3.53
IDE 40 Way Sub Miniature Cable	Internal Cable for 2.5" IDE Hard Drive 6cm	£8.50	a	£9.99
IDE 40 Way Sub Miniature Cable Short	As above but only 4cm long (A1200, etc)	£7.00	a	£8.23
Panasonic CD Ribbon Cable 40 Way	Internal Cable for CD ROM to Interface	£3.00	a	£3.53
Panasonic CD Audio Cable	CD to Soundcard/Interface for Audio CD's	£3.00	a	£3.53
Sony CD Ribbon Cable 34 Way	Internal Cable for CD ROM to Interface	£3.00	a	£3.53
Sony CD Audio Cable	CD to Soundcard/Interface for Audio CD's	£3.00	a	£3.53
Mitsumi CD Ribbon Cable 40 Way	Internal Cable for CD ROM to Interface	£3.00	a	£3.53
Mitsumi CD Audio Cable	CD to Soundcard/Interface for Audio CD's	£3.00	a	£3.53
2xFloppy Disk Drive Ribbon Cable	Internal Floppy Disk Drive Cable 3.5"/5.25"	£3.00	a	£3.53
Power Cable Splitter 5.25" or HD/CD 2-1	Splitter to add an Extra 4 Pin Power Lead	£3.25	a	£3.82
Power Cable Splitter 3.5" 2-1	As above but for 3.5" Floppy Disk Drives	£3.25	a	£3.82
PS2 Keyboard Adaptor	Converts Std 5 Pin Din Keyboard to PS2	£3.50	a	£4.11
PS2 to 5 Pin Keyboard Adaptor	Converts PS2 Keyboard to Std 5 Pin Din	£3.50	a	£4.11
PS2 Mouse Adaptor	Converts Serial 9 Pin Mouse to PS2	£3.50	a	£4.11
Dongle Dangle 6cm	For use on Restricted Access Computers	£8.00	a	£9.40

For other cables not listed or specialist cables, please call with specification and we'll make it for you.

MULTI - MEDIA KITS

	Ex Vat		Inc Vat
Twin Speed IDE CD ROM	£50.00	d	£58.75
Twin Speed External CD ROM	£175.00	d	£205.63
Quad Speed IDE CD ROM	£115.00	d	£135.13
Twin Speed SCSI CD ROM	£110.00	d	£129.25
Quad Speed SCSI CD ROM	£160.00	d	£188.00
External CD Box & PSU	£65.00	c	£76.38

MONITORS

	Ex Vat		Inc Vat
14" SVGA Monochrome	£79.00	d	£92.83
14" SVGA 0.39 Colour	£150.00	d	£176.25
14" SVGA 0.28 MPR2 Colour	£165.00	e	£193.88
15" SVGA 0.28 MPR2 Colour	£250.00	e	£293.75
17" SVGA 0.28 MPR2 Colour	£490.00	e	£575.75
20" SVGA 0.31 MPR2 Colour	£735.00	e	£863.63
Acorn AKF53 Med Res Colour	£235.00	e	£276.13
Acorn AKF60 Hi Res Colour	£295.00	e	£346.63
Acorn AKF85 As Above, 17"	£690.00	e	£810.75

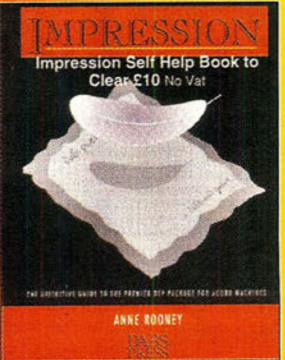
CD ACCESSORIES

	Ex Vat		Inc Vat
CD Caddy Holder	£5.00	a	£5.88
CD Disk Cleaner	£2.98	b	£3.50
CD Tray Flipper Holds 20	£2.55	b	£3.00
Empty CD Jewel Case	£0.50	a	£0.59
CD Protector Rings (Pack of 5)	£1.50	a	£1.76

ACORN Software

	Ex Vat		Inc Vat
10 out of 10 Software All Titles	£16.90	a	£19.86
1st Word Plus	£17.50	a	£20.56
Arc Comm2	£35.00	a	£41.13
Artworks CD Ver	£110.00	a	£129.25
Avery Label Templates	£5.00	a	£5.88
Black Angel	£22.98	a	£27.00
Borders for Impression 1	£8.51	a	10.00
Borders for Impression 2	£8.51	a	£10.00
Canon Fodder	£18.48	a	£21.71
Crystal Maze	£24.00	a	£28.20
The Crystal Rain Forest	£35.50	a	£41.71
Dataword	£11.91	a	£13.99
Dune II	£28.50	a	£33.49
Easiword v2	£25.00	a	£29.38
Easyfont 3	£25.00	a	£29.38
Euclid 2	£25.00	a	£29.38
Midnight Graphics Express	£15.00	a	£17.63
Guile	£18.00	a	£21.15
Labeller	£7.00	a	£8.23
Magic Pockets	£19.50	a	£22.91
Micro English	£18.00	a	£21.15
Micro French	£18.00	a	£21.15
Micro German	£18.00	a	£12.15
Pendown Etoiles	£41.70	a	£48.99
Pendown Plus	£68.00	a	£79.90
Pinpont	£45.00	a	£52.88
Pinpoint 2	£65.00	a	£76.38
Pipedream 4	£80.85	a	£95.00
Quest for Gold	£12.00	a	£14.10
Simon the Sorcerer	£28.00	a	£32.90
Tech Writer 2	£125.00	a	£146.88
Tower of Babel Comp.	£21.28	a	£25.00
Wolfenstein 3D	£22.00	a	£25.85
Wordz	£50.00	a	£58.75
Worra Cad	£65.00	a	£76.38
Xenon 2	£18.00	a	£21.15
Zool (1.44MB HD Only)	£14.00	a	£16.45

Huge range of Software available, call for list.



Impression Self Help Book to Clear £10 No Vat

ACORN UPGRADES

	Ex Vat		Inc Vat
4-8 MB Up. (310,440,400/1)	£249.00	c	£292.57
4-8 MB Up. (A3000/5000)	£249.00	c	£292.57
Arm 3 (A3000/400) & FPA Socket	£114	c	£133.95
Arm 3 As above with FPA.	£179.00	c	£210.32
FPA Upgrade for A5000/540	£79.00	c	£92.82
A3010 1-2 MB Upgrade	£45.00	b	£52.87
A3010 2-4 MB Upgrade	£89.00	c	£104.57
A3010 1-4 MB Upgrade	£132.00	c	£155.10
A3020/4000 2-4 MB Upgrade	£83.00	b	£97.52
A5000 2-4 MB Upgrade	£79.00	b	£92.82
A3000 1-2 MB Upgrade	£52.00	b	£61.10
A3000 1-4 MB Upgrade	£114.00	c	£133.95
A3000 Serial Port Upgrade	£19.00	b	£22.32
A310 4Mb Upgrade	£137.00	c	£160.97
Risc OS Carrier Board (A310)	£22.00	b	£25.85
MEMC 1A Upgrade Kit	£29.00	b	£34.07
A400/1 1Mb Upgrade per meg	£45.00	b	£52.87
Risc OS 3.1 Up. Rom & Books	£75.00	d	£88.12
Midi Expansion Card	£79.00	c	£92.82
CD ROM Drives SCSI	£POA	d	£POA
CD ROM Drives IDE	£POA	d	£POA
Scanlight Junior Handheld	£175.00	d	£205.62
VIDI Archimedes	£55.00	d	£64.62
Hard Drives (int) A3010/3020			
A3010 HD Interface	£69.00	d	£81.07
A3010 HD Int.Face & User Port	£79.00	d	£92.83
85Mb Hard Drive 2.5" IDE	£90.00	d	£105.75
120Mb Hard Drive 2.5" IDE	£95.00	d	£111.63
170Mb Hard Drive 2.5" IDE	£100.00	d	£117.50
210Mb Hard Drive 2.5" IDE	£130.00	d	£152.75
340Mb Hard Drive 2.5" IDE	£160.00	d	£188.00
Hard Drives (int) A4000/5000			
420Mb Hard Drive 3.5" IDE	£105.00	d	£123.38
560Mb Hard Drive 3.5" IDE	£125.00	d	£146.88
520Mb Hard Drive 3.5" SCSI	£175.00	d	£205.63
1Gb Hard Drive 3.5" SCSI	£275.00	e	£323.13
Hard Drives (ext) A3000			
-A3000 Req Interface & Case:			
A3000 IDE Interface Podule	£69.00	d	£81.07
A3000 Hard Drive Case	£65.00	d	£76.38
210Mb Hard Drive 3.5" IDE	£85.00	d	£99.88
420Mb Hard Drive 3.5" IDE	£105.00	d	£123.38
560Mb Hard Drive 3.5" IDE	£125.00	d	£146.88
Acorn Original Mouse	£25.00	b	£29.38
Acorn Replacement Mouse	£12.00	b	£14.10



Novelty Mouse Mats	Ex Vat		Inc Vat
Hamburger	£3.56	a	£4.18
Pig	£3.56	a	£4.18
Clown	£3.56	a	£4.18
Ladies Top	£3.56	a	£4.18
Male Torso	£3.56	a	£4.18
Football	£3.56	a	£4.18
Cat	£3.56	a	£4.18
Mouse	£3.56	a	£4.18
Pen	£3.56	a	£4.18
Car	£3.56	a	£4.18
Motorbike	£3.56	a	£4.18
Frog	£3.56	a	£4.18
Cosmic Rings Screen Saver Set	£9.00	a	£10.58
Battlescape Screen Saver Set	£9.00	a	£10.58

INTERNET

Heard the latest "Buzz" word from the Computer World?

Want to get connected to the rest of the World for the price of a local phone call?

Want your own EMAIL address?

We'll show you how, and provide all the information and software you need, be it for the Acorn or the PC. Call now and speak to our technical staff who will be happy to advise on the best type of modem, who provides the services and who is the best priced on the market.

Schools & Networking Section

NEW

Education Specialists

TRADE IN DEALS
for Schools & Teachers

Our PC's are built to very high and exacting standards to take advantage of todays Multi Media applications.

KCS are offering any school or teacher that wants to upgrade from an old acorn computer to a new Multi Media PC, the chance to do so at unbelievably low prices. We can take one Acorn or an entire network of them in Part Exchange. As budgets get smaller and resources, tighter. The Multi Media PC's offer an excellent way of utilising your IT budget to maximum effect.

All PC's for schools now come supplied with Iniguard Protect, which is a program that makes Windows a captive system. This means that the transition from Acorn to PC is as painless as possible. Iniguard Protect will stop any unauthorised access to the computer and ensure that the PC gives years of trouble free performance.

We are able to offer finance for single machines and leasing for several machines, we can even incorporate the network installation costs into the lease if you require.

KCS, with a wealth of experience in school networks and Multi Media machines are now best placed to serve your needs, please call or fax your requirements and we'll show you how we can be extremely competetive yet show excellent support when you need it most, in I.T.



DX2 - 66 - 256k Cache	DX4 - 100 - 256k Cache
4Mb Ram	8Mb Ram
560Mb Hard Drive	560Mb Hard Drive
VLB 1Mb Graphics Card	VLB 1Mb Graphics Card
VLB Enhanced I/O	VLB Enhanced I/O
1.44Mb Floppy	1.44Mb Floppy
14" SVGA Colour Monitor	14" SVGA Colour Monitor
UK Keyboard	UK Keyboard
Mouse	Mouse
Twin Speed CD ROM	Quad Speed CD ROM
16 Bit Stereo Soundcard	16 Bit Stereo Soundcard
Dos & Windows	Dos & Windows
Encarta 95	Encarta 95
Microsoft Works	Microsoft Works
SRP £879	SRP £999
Teacher £850	Teacher £950
School £800	School £910

Arcshare™
Acorn to PC Networking Software

Dealer enquiries welcome.

ArcShare

Arcshare is an Acorn to PC networking packages which makes the PC behave as if it was an Acorn Access system. This allows fast easy transfers of data from or to either machine via a simple to control interface on the PC. The Acorn on the other hand needs no special software other than Access. The Acorn is then able to see all the files on the PC just like any other networked drive, whats more, all the files stored on the PC have the correct filetype, so they can be loaded and used straight away.



Available Now, no special hardware required.

Arcshare Server 1.4 **£99** & Vat

School Network SERVER

Dealer enquiries welcome.

KCS have developed the KCS NetServer system for entire school network management.

The NetServer utilises the advanced Networking and security features of Microsoft Windows NT environment and the recently launched Arcshare, Acorn to PC networking software.

The NetServer will allow Acorn computers to talk to PC computers and Macintosh at the same time on the same network. Files and printers can be shared no matter were they are on the network. The high performance nature of the two models of NetServer are ideal for fileserving in establishments that require a high level of useability and integrity.

NetServer 1000
100Mhz Processor, 24Mb RAM, 1Gb IDE Hard Drive, Quad Speed CD ROM, Windows NT 3.5x, 1.44Mb Floppy, PCI Graphics Card, MPR2 Colour Monitor, 100Mbit PCI Network Card.

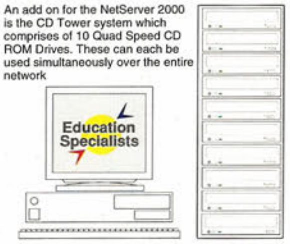
Free Installation ***£2750.00***

NetServer 2000
100Mhz Processor, 32Mb RAM, 2Gb SCSI Hard Drive Stripe Set, Quad Speed CD ROM, Windows NT 3.5x, 1.44Mb Floppy, PCI Graphics Card, MPR2 Colour Monitor, 100Mbit PCI Network Card 2Gb DAT Backup Unit.

Free Installation ***£4250.00***

Using the NetServer at the heart of a network enables easy network management in one machine with access to Macs, Acorns, PC's, and even Unix systems. The real beauty about this system is that the "Client" machines don't notice anything different about the network, as Arcshare and Windows NT effortlessly blend together to give full control and file manipulation.

An add on for the NetServer 2000 is the CD Tower system which comprises of 10 Quad Speed CD ROM Drives. These can each be used simultaneously over the entire network

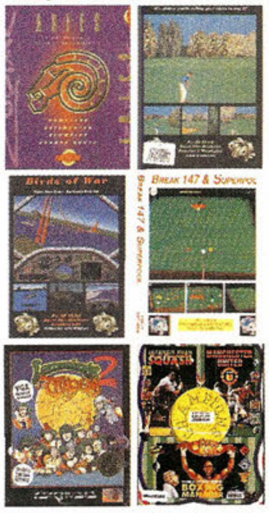


INKJET & LASER PAPER/OHP's

	Ex Vat		Inc Vat
Iridium Laser/Inkjet Paper 100 grm A4 500 shts	£6.00	d	£7.05
Iridium Laser/Inkjet Paper 100 grm A3 500 shts	£14.00	d	£16.45
Laser Plus Laser/Inkjet Paper 90 grm A4 500 shts	£5.10	d	£5.99
Laser Plus Inkjet Coated Paper for Colour Printing A4 200 shts	£16.00	d	£18.80
Premier Matt Coated Inkjet Paper for Colour Printing A4 200 shts	£14.00	d	£16.45
Premier Matt Coated Inkjet Paper for Colour Printing A4 50 shts	£5.00	b	£5.88
Hewlett Packard Glossy Paper 51636J A4 50 shts	£41.00	b	£48.18
Premier Gloss Coated Inkjet Paper for High Quality Colour Printing A4 50 shts	£35.00	b	£41.13
Premier Gloss Coated Inkjet Paper for High Quality Colour Printing A4 20 shts	£16.00	b	£18.80
Canon LC-101 Coated Inkjet Paper for Colour Printing A4 200 shts	£18.00	d	£21.15
Canon LC-101 Coated Inkjet Paper for Colour Printing A3 100 shts	£41.00	d	£48.18
Epson Coated Inkjet 720 DPI For High Quality Colour Printing (Stylus) A4 200 shts	£19.00	d	£22.33
Epson Coated Inkjet 360 DPI For Colour Printing on Stylus Colour A4 200 shts	£17.00	d	£19.98
Premier Inkjet Transparencies for Overhead Projectors A4 50 shts	£30.00	b	£35.25
Premier Inkjet Transparencies for Overhead Projectors A4 20 shts	£15.00	b	£17.63
Hewlett Packard Inkjet Transparencies for Overhead Projectors 51636G A4 50 shts	£40.00	b	£47.00
Avery Inkjet Transparencies for Overhead Projectors A4 50 shts	£34.00	b	£39.95
3M Laser Transparencies for Overhead Projectors A4 50 shts	£25.00	b	£29.38
Premier Laser Transparencies for Overhead Projectors A4 50 shts	£25.00	b	£29.38
Premier Laser Transparencies for Overhead Projectors A4 20 shts	£12.50	b	£14.69

If you have access to email, ask for a full catalogue via the Internet.
Email us at info@kcsprem.demon.co.uk

Surplus Software Deals



Aries	£15	Break 147	£15
Virtual Golf	£15	Lemmings 2	£15
Birds of War	£15	Champions	£12.72

office data

Copy Holders	Ex Vat		Inc Vat
Paperclip - Monitor Arm	£4.26	b	£5.00
Copytravel - Portable	£4.26	b	£5.00
Copyplus Desktop	£7.50	b	£8.81
Copyplus Solid Base	£12.00	c	£14.10
Copyplus Flexible Arm	£12.72	c	£14.95
Copyplus A3 Extension Kit	£7.00	b	£8.23
Various Accessories			
Ergo Mouse Pad - Hard Mat	£4.26	b	£5.00
Ergo Mouse Tray & Wrist Rest	£6.00	b	£7.05
Mouse/Scanner Holder	£2.50	b	£2.94
Novelty Cat Mouse Holder Red	£2.50	b	£2.94
Novelty Cat Mouse Holder Black	£2.50	b	£2.94
Novelty Cat Mouse Holder Grey	£2.50	b	£2.94
Wildlife Mouse Mat	£4.00	a	£4.70
Wildlife Wrist Rest	£4.50	b	£5.29
Dinosaur Mouse Mat	£4.00	a	£4.70
Dinosaur Wrist Rest	£4.50	b	£5.29
Combo Pad Thick Mouse Mat	£5.25	b	£6.17
Keyboard Extenders	£16.00	d	£18.80
Keyboard Calculator	£4.26	a	£5.00
Keyboard Station (PC)	£15.90	d	£18.68
Wrist Support Fabric	£3.00	b	£3.52
Wrist Support Plastic	£4.90	b	£5.76
Disk Porter Ring Binder 3.5"	£4.26	b	£5.00
Disk Clips (3) Ring Binder 3.5"	£3.25	a	£3.82
Disk Pocket Leatherette holds 6	£6.00	b	£7.05
Disk Mailer holds 6 Reuseable	£3.50	a	£4.11
Monitor Swivel Stand 12-14"	£14.00	d	£16.45
Universal 2 Pce Printer Stand	£3.00	c	£3.52
As Above with Printout Tray	£6.50	d	£7.64
Stax 132 Column Printer Stand	£13.00	d	£15.28
Monitor Filters			
Economy Glass Filter 14"	£18.40	d	£21.63
Economy Glass Filter 15"	£21.50	d	£25.26
Economy Glass Filter 17"	£65.00	e	£76.38
Light Glass Screen Filter 12-15"	£56.00	e	£65.80
Dark Glass Screen Filter 12-15"	£66.00	e	£77.55
Privacy Filter 60% View 12-15"	£85.00	e	£99.88

RISC PC UPGRADES

	Ex Vat		Inc Vat
Risc PC 1MB VRAM	£70.00	b	£82.25
Risc PC 2MB VRAM	£189.00	c	£222.08
Risc PC Extra Slice & PSU	£99.00	d	£116.33
Risc PC Extra Slice (no PSU)	£49.00	d	£57.58
Risc PC Heavy Duty Keyboard	£64.00	d	£75.20
Risc PC Keyboard Extension	£6.50	b	£7.64
Risc PC Mouse Extension	£6.50	b	£7.64
Risc PC Mouse Mat (Rare)	£4.00	b	£4.70
Risc PC 2nd HD Fixing Kit	£6.00	b	£7.05
Risc PC Memory 4Mb	£100.00	c	£117.50
Risc PC Memory 8Mb	£195.00	c	£229.13
Risc PC Memory 16Mb	£335.00	c	£393.63
Risc PC Memory 32Mb	£735.00	c	£863.63
Risc PC 700 Processor Board	POA	d	POA

RPC 486 Games CD

A collection of over 150 of the very best PC Shareware & PD games available all on one CD ROM. Includes DOOM & Apoge Stuff **£15** & Vat

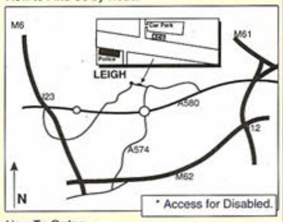
MODEMS

	Ex Vat		Inc Vat
14,400K External Fax/Modem	£75.00	d	£88.13
28,800K External Fax/Modem	£145.00	d	£170.38
Arcfax Software	£28.00	b	£32.90
ArcComm Software	£40.00	b	£47.00
Modem Cable	£8.50	b	£9.99

Opening Hours

Monday		9am-6pm
Tuesday		9am-6pm
Wednesday		9am-6pm
Thursday	Late Night	9am-8pm
Friday	Late Night	9am-8pm
Saturday		9am-6pm
Sunday		*By Appointment Only*

How to Find Us by Road:



How To Order:

By Post - Send Full details of your order, together with payment details. Include your Name, Address & Phone Number. Always Include your Postcode.

By Phone - Our Staff will take all the necessary details over the phone, Your order will usually be sent the same day.

By Fax - As by Post - Fax No: **01942 672300**

By Email - Send full details to our sales address at the top of this advert with payment details. Or, if you prefer, leave a number and we'll call you back.

Carriage Charges -
A=£1, B=£2, C=£3.50, D=£4.50, E=£6, F=£9.
a+a=B, a+b=C, a+c=D, c+b=E, etc Call if Unsure.

Acorn's new

What we knew as Acorn Computers effectively split last month into two new divisions: Acorn Education and Applied Risc Technologies. David Matthewman explains what they are, why they were created, and what this means for Acorn's long-term future.

Last month, Acorn lost a lot of money; £7.9m to be precise which, for any company intending to be profitable, clearly signalled the way for change. The first change was the appointment of a new Managing Director, David Lee, who quickly identified the need for Acorn to both cut its costs and grow its revenue.

The cost-cutting exercise was the 'easy' part – easy to identify what should be done, though obviously not easy in the human cost of jobs lost – but the growth of Acorn's revenue was more complicated. David Lee believes that the solution lies in the focussing of Acorn's operations into its two main areas of expertise with the creation of two new divisions within Acorn: Applied Risc Technologies (ART) and Acorn Education.

Marketing RISC technology

ART, headed by Peter Bondar, is made up primarily from the research and development part of 'old' Acorn. However, where as it used to operate philanthropically in the Acorn community, ART will now be run quite clearly as a business.

This very idea can set alarm bells ringing in the minds of people who don't believe that commercial interests can ever sit side-by-side with good research, but if you need a fine example of where this is possible, you need look no further than ARM itself, which continues to run at a profit while designing chips at the cutting edge of high-performance, low-cost and power technology.

Inevitably some projects will be lost. Although it was reported in the news last month that the much-awaited colour portable was still on target, this now appears to have been put on ice. On the other hand, RISC OS is being constantly upgraded, though this will be branching out to support environments other than the Desktop for use as an OS in systems other than the traditional personal computer, as well as developing along traditional lines. ART's intention, then, is to design create and develop systems around RISC technology.

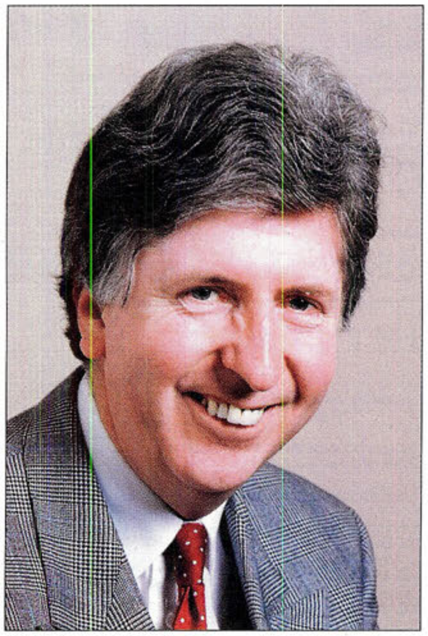
Peter Bondar explained that this will include PowerPC and other RISC processors, as well as ARM products. While some may seize on this as 'proof' that Acorn is abandoning ARM technology, in truth it is nothing of the sort; ART has every faith in ARM chips as pieces of silicon with a bright future, but sees no sense in restricting its operation.

The products – which ART's mission statement poetically describes as 'entities' – will have both a commercial and a technological benefit to ART and its partners. They will be based around RISC technology, and an obvious and familiar example is the RISC OS range of personal computers which will continue to be developed for Acorn Education. Peter Bondar sees these as central to the ART range; their very existence allows him to market ARM-based systems as systems with a huge application base. We in the Acorn community are used to being a little defensive about the range of software available for our machines but, at the level that ART is trying to sell, the existence of (for instance) fast JPEG code built in to RISC OS 3.6 is a clear selling point. Very few competitors can offer what ART can without expensive development environments.

Acorn Education is, at the moment, ART's biggest customer for RISC OS machines by far, though they will also be sold to Value Added Resellers (VARs) such as AB Dick who markets the publishing system. Other ART products will almost certainly start appearing in a year or so, although whether we will know it or not remains to be seen. Details of ART's developments are commercially sensitive, and the final product will be badged and marketed by someone completely different. Suffice it to say that Peter Bondar hopes that in a couple of years you will be able to walk into Dixons and buy a



Peter Bondar, who heads ART.



Mike O'Riordan, Acorn Education's boss

vision

Online Media and ARM

In all the re-organisation, it is easy to forget about Acorn's other division, Online Media. This continues to develop set-top box technology (its research and development is separate from ART's) and is rapidly gaining momentum. We look at Online Media in a separate three-part article in the magazine, starting this month. Acorn also holds a 43 per cent stake in ARM Ltd, which is a separate company.

range of products which use ART technology, even if not a single one actually carries the ART logo.

While ART and ARM could, in theory, be competitors, Peter Bondar sees little conflict. ART has the expertise needed to get a product to market quickly, and in practice ARM often sends potential customers to Acorn to see its technology in use.

'While anyone can, in theory, buy an ARM chip and use the freely-available data sheets to design a product around it,' says Bondar, 'getting an ARM product to "hum and fly" is, well, an art form.'

Yes, they chose a sensible acronym for the division.

Selling education

Acorn Education, headed by Mike O'Riordan, aims to sell Acorn computers into schools in a changing marketplace where customers are increasingly looking for a one-stop solution. Acorn is taking on an increasingly central role in this. The dealer channel changes – with the appointment of 25 'Education Agents' who effectively handle all Acorn's educational sales in fixed geographical areas – was the first manifestation of this. It allowed Acorn direct control over its sales channels; as Mike O'Riordan said, it's *'Acorn's* market, and we intend to protect it and expand it.'

More centralisation is planned. The next Acorn catalogue (available in October) will include a wide range of educational third-party software, not something Acorn has previously sold.

'Some software developers have poor sales and marketing,' explains Mike. 'They're simply not set up to produce and send out 25,000 glossy leaflets about their product. What we are effectively putting in place is an efficient sales and marketing machine for these developers.'

'We will admittedly be taking business away from some dealers – but only of educational software, which very few dealers hold a complete inventory of anyway. We can give better support for a product as well; if you phone up your local dealer and ask about, say, *Betsi*, he will more than likely direct you to the software house anyway. We intend that our support staff will be ably to answer questions on the whole range of products that we will sell.'

The most controversial and also the most encouraging development is the willingness of Acorn Education to sell PCs to schools that need them. This is a move that Mike feels should have been made a few years back and is emphatically not an abandonment of RISC OS. Make no mistake, Mike is a RISC OS fan, and Acorn Education will be continuing to push ART to develop the operating system for sale to schools.

Unfortunately, trying to convince most schools to use Acorns for admin or GNVQ courses is a waste of time in practice, and Acorn is often tarred with the 'you only sell RISC OS, so naturally you say it's the best system' brush. If Acorn is offering both PC and RISC OS systems it will be seen as more impartial, and can get its foot in the door in RM-based areas that were previously barred to it.

Such areas will often buy Pocket Books in any case. Pocket Books are a best-seller for Acorn and contribute to the excellent brand-awareness of Acorn in education; they may also feature highly in the rhetoric leading up to the next general election, if Tony Blair's speech to the Labour Conference is any benchmark.

Acorn Education is not intending to sell PCs into the Primary School market, where it already has a very strong grip, nor to home users. PCs are seen purely as a tool to get Acorn selling a wider range of computers into schools which otherwise wouldn't allow it through the door.

The home market, in the form of families, is also a target for Acorn Education. So are other home users in a way – they tend to be interested in the high-end systems favoured by enthusiasts, and the enthusiasts' Clan scheme is being run from within Acorn Education by Chris Cox. If Acorn Education is the success that is hoped, there may be plans to target the consumer market more directly, perhaps by setting up a new division, but that's not this year's priority.

Acorn Education will work closely with Acorn Education centres to offer the best and most up-to-date service for schools. Acorn Education has a commitment to train teachers to use IT effectively in the classroom throughout the country, and a training programme has been finalised.

For many schools – probably the majority – Acorn is still the preferred supplier, not just because of RISC OS but through its pedigree and knowledge in the area. By going on the attack, Mike O'Riordan hopes that Acorn can reverse its declining fortunes and sell more computers and services to schools than ever. AU

Jargon

ARM: Advanced Risc Machines, a company which sprang from Acorn and in which Acorn holds a 43 per cent stake. ARM designs high-speed RISC processors used in all Archimedes computers and the Risc PC (and increasingly in other areas too).

PC: Generic term for an IBM computer or compatible, usually running an operating system from Microsoft. Considered industry standard (though it very much depends upon the industry) and favoured by some schools for that reason, despite the belief of many that the RISC OS is a much better system to learn on. Clearly Bill Gates thought so, as Windows 95 looks like a poorly disguised (and poor) RISC OS clone.

RISC: Reduced Instruction Set Chip, a processor which executes a limited set of instructions very quickly (rather than a complicated set more slowly). RISC chips have been used in Acorn machines since 1987, and are increasingly being used in other computers – the PowerPC chip at the heart of a Power Mac is a RISC chip.

RISC OS: The operating system in the Archimedes and Risc PC.

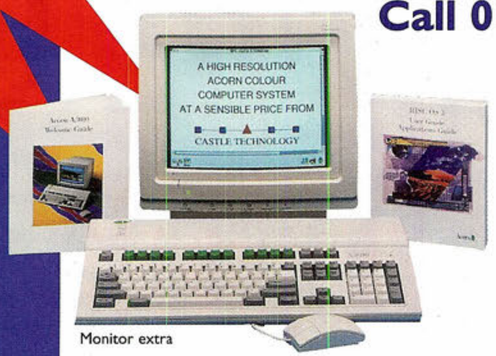
Acorn

2Mb A3010 computer plus £300 worth of 1st class Acorn software for only £185

A Special Offer from CASTLE TECHNOLOGY

Acorn User Best Dealer Award 1995 - Runner-up

Available now while stocks last! Call 01728 621222



Monitor extra

SOFTWARE OPTIONS:

OPTION 1 - **DISCOVERY BUNDLE.**

Advance. Integrated database, spreadsheet, wordprocessor and graphing package.
Magpie. Multimedia authoring package.
The Crystal Rain Forest. Environmental adventure software incl. an introduction to Logo.
Mouse mat & 1 year on-site warranty.

OPTION 2 - **HOME OFFICE BUNDLE.**

Easiwriter. Wordprocessing made easy.
Datapower. The acclaimed database software.
Pipedream 4. The powerful spreadsheet, database and wordprocessor.
Mouse mat & 1 year on-site warranty.

Castle Technology Ore Trading Estate
Woodbridge Road Framlingham Suffolk IP13 9LL

Connect our amazing special offer to your TV, or use it with our Upgrade Kits to make a complete high quality computer system:

HARD DRIVE SYSTEM: 60Mb hard drive, 14" MPRII 0.28mm monitor. *Only £265 extra.*

CD ROM SYSTEM extra 2Mb RAM, 2-speed CD ROM drive, 200Mb hard drive, SCSI Interface, 14" MPRII 0.28mm monitor. *Only £515 extra.*

Other configurations also available including the complete range of Castle Technology upgrades for the A3010.

ORDER 10 - GET 1 FREE!
Order 10 of the above Hard Drive or CD ROM systems and we will supply one of our Special Offer 2Mb A3010 computers FREE!*

ORDER NOW!

Order by telephone on 01728 621222 or Fax on 01728 621179.

Delivery £9 per computer. Prices exclude VAT. Cheques*, debit cards (Switch & Delta), credit cards(2% charge may apply), and educational orders accepted.
All trademarks acknowledged.
*Cheques: allow 5 working days to clear.

THE A3010 COMPUTER

The A3010 is ideal for schools, small businesses and, of course, in the home. The A3010 shares the same processor and main electronics as the A3020 & A4000 computers. It has one internal expansion slot, a serial port, two joystick ports and a parallel printer port.

MONITORS

The A3010 supports a wide range of monitors. Our MPRII monitors are suitable for most software, including the above (some older software may not run correctly). Castle Technology can also supply Acorn AKF50 or AKF52 monitors.

Other products from Castle Technology:

SCANFLAT — £399



- Flat bed SCSI scanner
- Fits all Acorn computers with SCSI interface
- ImageMaster software included
- Fast Scanning speed - 3.6ms per line
- Twain compliant

Scanflat offers high quality scanning of photographs, artwork or text at up to 600 dpi, capturing 16-78 million colours

ERGO KEYBOARD — £99



- Built in wrist support
- Tested to 30 million operations
- Quiet, tactile and curved low profile keys
- Full two year guarantee
- International versions available

A PC style keyboard for Acorn computers, with modern ergonomic features and the MEDE keyboard mouse emulation

from £139 — CD-ROM

Open up the world of multimedia and breathtaking graphics with a CD-Rom. Speed options 2x (300kb/sec) to 4x (600kb/sec).

- Supplied with Acorn driver
- Choice of SCSI or IDE interface
- Free headphones, Photoview & Audioplay
- Compatible with Kodak Photo CD
- Internally or externally housed



from £175 — SYQUEST REMOVABLE DRIVES

A smart alternative to other storage media, these removable drives can store up to 270Mb, ideal for multimedia and DTP work.

- 3.5" 105/270 Mb capacity
- 5.25" 200 Mb capacity
- SCSI or IDE interfaces
- Programmable power saving modes
- Internal or externally housed



HARD DISCS — from £70



- 2.5" or 3.5" sizes
- Fast access of up to 8ms
- 20Mb to 2Gb capacity
- Formatted and soak-tested
- Interface may be required

A range of ultra fast hard discs that come with up to a five year guarantee, up to two Gigabytes, with a choice of SCSI or IDE

SCSI DISC SHARE — from £199 per station



- Suitable for all Acorn computers
- Easy to use and manage
- Share CD ROMs, scanners and printers
- The fastest disc sharing system
- Plug-in and go installation

A proven, simple, low cost solution for connecting up to six Acorn computers to a hard drive and CD ROM to share both applications and resources

£199 — LIGHT PEN

A unique product that replaces your mouse, ideal for art and Computer Aided Design work. Available for Acorn and PC.

- Supplied for all Acorn computers
- Menu & select buttons on pen
- Instant response time
- Three colour aluminium or plastic casing
- National Curriculum "input device"



from £65 — IDE AND SCSI INTERFACES

High performance inferfaces designed to connect Acorn computers to hard discs, CD-ROMS, scanners, printers etc.

- Designers of interfaces since 1988
- Connect your computer to hard drives etc.
- Up to seven devices per interface (SCSI)
- Available for all Acorn computers
- Transfer rates of up to 4.5Mb/sec



Call for current price list. Delivery £8 for 3 day, £10 for 24hr. Official orders, credit cards*, debit cards etc. accepted.
Complete range of Acorn computers & installation and training are also available. *2% credit card surcharge may apply. All trademarks acknowledged. All prices exclude VAT. E&OE.

CASTLE TECHNOLOGY

is an

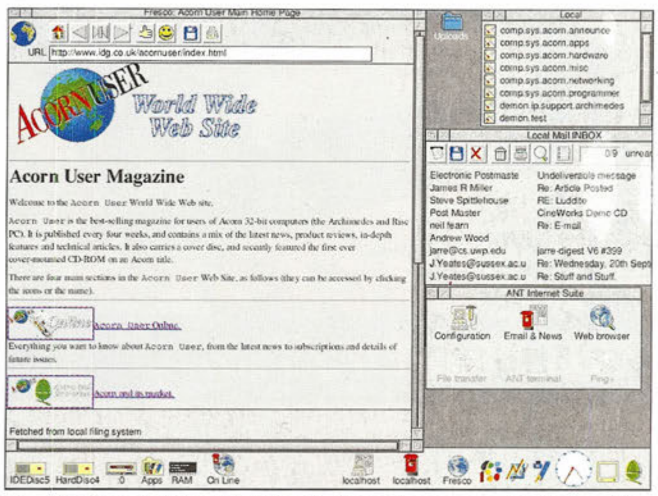
Acorn

Centre of Technology

Unfinished business



David Dade looks at the range of Internet software (nearly) available for the Archimedes.



The *Ant Internet Suite* offers integrated e-mail and news, plus Ant's wittily-titled *Fresco* web browser.

Beta-testing is the term used when a program which is nearly ready for release is sold to real users, who buy it on the understanding that there may be bugs they can help to report and get fixed. These paying users are then rewarded with enhanced support and free upgrades as they become available. All the major commercial packages for Internet access are in beta-test at the moment, so it is worth remembering that what is reviewed here is not the final story.

Under consideration are *The Ant Internet Suite*, DoggySoft's *Termite Internet*, Argonet's *Voyager* and the two Freeware packages available from ftp sites and many Acorn Bulletin Boards. All these packages assume that you have an Acorn computer running RISC OS 3.10 or later, at least 4Mb RAM, 5Mb or more free on your hard disc, and for dial-up Internet access, a V.32 (14400bps) modem or better, a phone line, and an account with an Internet IP service such as Demon, Pipex, Cityscape and so on.

The Ant Internet Suite

Supplied on one HD or two DD discs, the Ant *Install* program asks you for some basic information that your service will have given you about your Internet account, and places the Internet Suite programs in your chosen directory, with a choice of Internet connection via network or modem. Also included is a simple utility by Hugo Fiennes that detects the type of modem cable you have and tests your serial port and modem – you can find this useful program on this month's cover disc. The word 'Configuration' freezes the blood of many new users, but Ant's *Interet Suite* already knows most of the details for about a dozen popular service providers, so only a few items need to be entered.

Currently, the suite consists of the *Marcel* e-mail and news client and *Fresco* – the WWW browser. More clients are in development such as drag-and-drop file transfer, Ant terminal and so on. Once a connection is established, 'Online' appears under the icon bar icon and you can then start web-browsing by loading the *Fresco* browser, transferring news and e-mail, and processing it with *Marcel*.

Fresco has a button bar at the top of its window with a box to enter the URL of a web page, and a pane at the bottom showing information about the page being fetched, and the function of the button currently under the pointer. A good feature of *Fresco* is that it displays the text of a page almost at once, then fetches any pictures afterwards, saving time when you want to follow a link to another page.

With a V34 connection, most pages arrive quite smartly. The text of the Acorn home page typically took five seconds to arrive, with the full graphics including a 60K image map arriving after 50 seconds. It copes well with the latest *NetScape™* HTML extensions.

Fresco allows you to fetch more than one page at a time with multiple windows, although this can slow down fetches. The browser controls are comprehensive, but I'd like to see the release version having the ability to drop a selected URL cut from a document into the box at the top of the window.

E-mail and news can be read and written by running *Marcel Lite*. Clicking on the newspaper shows a list of the configured newsgroups, and double-clicking on an entry lists the articles which are themselves displayed by clicking on them. You can reply to news or send mail, search though messages or save them to disc. The mailbox icon brings up a list of e-mail received, with similar options to read. File attachments can be easily added to outgoing mail or decoded from incoming mail.

Button bars of icons adorn these list and read windows, but there is no built-in help on the icon functions as *Fresco* has. In the pre-release version, some expected features are absent, but Ant told me that a substantially improved version will be available shortly, as will a comprehensive manual to replace the draft documentation supplied on disc.

The Ant *Internet suite* aims to be the definitive Acorn Internet connectivity package by which others are judged. The other runners are pretty close behind as we shall see.

Acornet

This is a compilation of Freeware applications bundled with a special configuration program by Phillip Temple. It consists of the *FreeNet* TCP/IP stack by Tom Hughes, *ArcWeb* browser by Stewart Brodie, *FreeTerm* by Tony Howat, and *SlipDial* by Graham Allan. When the archive is unpacked and *Acornet* is run, *Slipdial*

integrex

LEADING SCANNING & PRINTING TECHNOLOGY





COLOURJET *Classic*

- Drivers for Windows 3.1 or Riscos 3.1
- Low cost
- Compatible with most older Educational Software and Hardware (Riscos 2 and Nimbus 186)
- 300 x 600dpi printing Colour and Monochrome
- Integrex ColourJet 132 Emulation
- Roll fed as standard
- Optional 70 page A4 Cut sheet feeder
- Serial Interface option

£50 of BANNER SOFTWARE included in package

ONLY £249.00 (£292.58 inc VAT)

COLOURJET MASTER

- High quality high resolution at affordable prices
- 300 x 300dpi Colour and 600 x 300dpi Mono printing
- Energy Star compliant
- Built in Automatic Sheet Feeder 150 sheets
- Compatible with Acorn Archimedes (Riscos 3:1). IBM PC/RM Nimbus (Windows 3.1)
- Robust construction duty cycle up to 2000 pages per month
- 3 Year Warranty available

£249.00
(£292.58 inc VAT)

Bring this advert with you and

SAVE £25

off the purchase price of each Colourjet Classic or Master printers. Offer applies only to orders taken at the Acorn World show.

LEADING SUPPLIERS TO EDUCATIONAL ESTABLISHMENTS

ALL PRICES SHOWN EX.VAT.

VISA Access

SURCHARGE MAY BE APPLICABLE

INTEGREX LIMITED, Church Gresley, Swadlincote, Derbyshire DE11 9PT Fax: (01283) 552028

Acorn WORLD A95W SPONSORED BY ACORNUSER

SEE US ON Stand Number 176 HALL 1

Call now for instant response

(01283) 550880

Sales lines open 9am-5.30pm Mon - Fri

Subject to availability despatch is normally effected within 2 days from receipt of cleared payment. Please allow 7 working days for cheque clearance. All orders will be fulfilled within 28 days unless otherwise notified.

ALL PRICES EXCLUDE CARRIAGE - £7.00 NEXT DAY (LASERJETS £10)

Call for all Consumable prices

PRICES ARE CORRECT AT THE TIME OF GOING TO PRINT BUT MAY BE SUBJECT TO CHANGE

loads onto the icon bar, and a menu offers connect and configure options designed for Demon Internet subscribers.

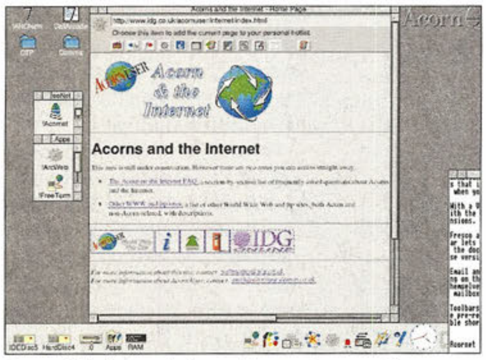
Again, basic information about your Internet account is entered in the configure window. Clicking on the Install icon places the entered data into the applications; some unimplemented functions may be added in later versions of this configure utility such as search-by-dialling-code for the nearest POP.

ArcWeb is then run and when its icon appears, clicking on it starts your WWW journey. *ArcWeb's* browser window also features a tool bar with built-in pointer-sensitive help, and supports many of the *NetScape™* extensions such as background images and colour-changing. The Acorn home page took 60 seconds to fetch and render, and the text appears in sequence with the pictures, so you have to wait for all the graphics to arrive before being able to read it all.

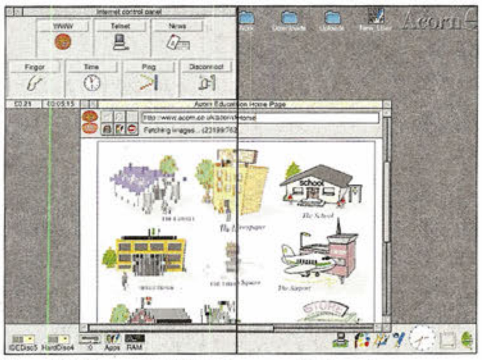
You can stop a fetch by clicking on the spider icon, and you can fetch a page by dragging a text file of the URL onto the box at the top of the window. All the standard button bar functions are present and are duplicated by menus.

The program is supplied ready-configured for most uses, and you don't really need to change anything. There are some items you do need to set in the 'helper' application called *ArcWebTCP* that define your e-mail address and mail server which are not covered by Phillip's setup program.

ArcWeb renders pages at least as well as *Fresco*, but takes a bit longer to render the whole document. There is an option to display pages without embedded graphics if required.



For straightforward, free software to access the WWW, *ArcWeb* and *FreeNet* take some beating, but you do need a large icon bar.



***Termite Internet's* WWW browser fetches large graphics in more than one pass, gradually building up the picture as it goes.**

Termite Internet

Termite Internet is a package that enables the user to communicate both with Bulletin Boards in regular ANSI mode, and with the Internet using TCP/IP protocol. An installer program places the program where you want it, and automatically runs the Configuration utility, which sets up *Termite Internet* with your Internet account details.

With the main program running, clicking on the icon bar produces a pre-configured menu of systems to call, including a list of well-known bulletin boards, the TI web offline browser and 'Internet'. Clicking on the 'Internet' entry starts dialling, and when connection is established a window opens showing all the available client functions.

Clicking on the WWW icon starts the browser. The Acorn home page took 55 seconds to arrive and was rendered in four passes, each pass adding more detail than the last. You can configure one-pass rendering if desired; *NetScape™* extensions are also well-supported. Dragged-in URL texts are not accepted by the browser, unfortunately.

Termite Internet has a style editor which can be used to set up various features of the connection, and some quite important Internet proxy options seem hidden here.

Clicking on the news icon starts the transfer of newsgroups while e-mail transfer starts automatically when the connection is established. All client functions can be turned on or off using the *TermiteIP* configuration program already mentioned.

News and e-mail are read and written with a separate application, *Offlite*, which is operated by a combination of clear arrow buttons and legend icons. *Offlite* finds and imports news and mail received, and offers messages listed by newsgroup to read and reply to. The

Product details

Product: The Ant Internet Suite
Supplier: Ant Ltd
Tel: (01223) 567808
Fax: (01223) 567801
E-mail: sales@ant.co.uk
WWW: http://www.ant.co.uk/
Price: £99 + VAT

Pros: Works over a network • Drag-and-drop ftp client promised • Good interface and set-up • Files may easily be attached to e-mail

Cons: Some clients not finished yet • Most expensive software

Product: Acornet
Supplier: Most BBSs, ftp sites and PD libraries
Price: Free

Pros: Free • Fast • Easy to use for WWW browsing

Cons: No e-mail or news posting yet, though this is promised soon

Product: Termite Internet
Supplier: Doggysoft
Tel: (01494) 673222
Fax: (01494) 675878
Modem: (01494) 681711
E-mail: sales@doggysft.demon.co.uk
WWW: http://www.u-net.com/~~doggysft/
Price: £79.95 + VAT

Pros: Allows BBS as well as Internet access • Good WWW browser • The most 'complete' commercial solution • Good interface

Cons: Not as 'network-aware' as Ant's software

Product: KA9Q and Webster
Supplier: Most BBSs, ftp sites and PD libraries
Price: Free

Pros: Free • KA9Q is a tried and tested solution • Better e-mail and news access than *Acornet*

Cons: WWW access is restricted (no forms) • KA9Q is a little awkward to use

Product: Voyager
Supplier: ArgoNet
Tel: (0500) 585586
Price: £59 inc VAT (includes initial ArgoNet subscription, see offer in this issue)

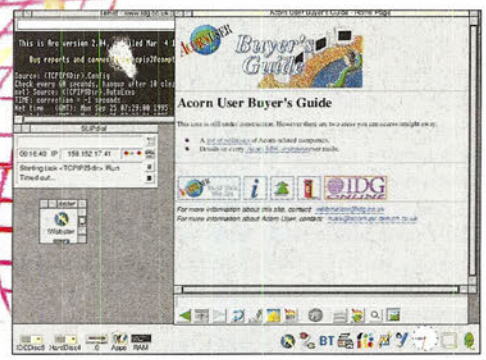
Pros: Comes ready-configured • Cheapest commercial option • Free telephone support

Cons: Currently tied to the ArgoNet Internet provider • Much of the software still under test at the time of the review





The *Voyager* package is based on a number of freeware packages – the Web browser will be familiar to *ArcWeb* users. However, the front-end and connecting software is all new, and the ftp client which allows drag-and-drop file transfer is excellent.



That old favourite *KA9Q* is still very much an option for connecting to the Internet, though command-line based and therefore a little user-unfriendly. Although *ArcWeb* and *Webster* can be used with it, it works best with *Webster*.

text of all messages in all groups is shown sequentially as you step through the list, or you can click on any one individually, or follow threads.

Replying uses whichever text editor you have loaded. You can mark sections of a message for quoting in your reply or save that section or the whole message as a file. The quoted text is re-formatted in the reply, and you can change the source message from which you are quoting while replying.

Termite Internet competes well in the Internet connectivity stakes, and gives you access to all Bulletin Board systems into the bargain.

Webster and KA9Q

Andrew Pullan's Freeware Web browser *Webster* can be used with *KA9Q*, the pioneering TCP/IP stack program by various authors, currently maintained on the Acorn platform by Anthony Frost and Adam Goodfellow. *KA9Q* can be set up quite easily using Colin Hogben's Freeware *NetConfig* program, which sequentially asks you for your account and serial system information and pre-configures the Starter Pack applications for you. All these applications are downloadable from BBSs as well as from popular ftp sites.

When a connection has been established via *SlipDial* and *KA9Q*, *Webster* is simply double-clicked to run, and opens a help index window. From here you can read comprehensive help information stored within *Webster*, and venture out onto the Web from a useful starting hotlist, or open an entry window to type in a URL.

The *Webster* browser window features built-in pointer-sensitive help for the nice clear tool bar buttons, which can be placed at the top or bottom of the window. The usual options are offered and very comprehensive internal configuration options are available from the icon bar menu if you need them.

Webster took 75 seconds to complete the rendering of the Acorn home page, but was not quite happy with some other web pages. Some of the pictures on the IDG home page were placed incorrectly, and although some of the *Netscape* extensions are supported, backgrounds did not appear in the version I tested.

In spite of this, the *Webster* package looks good and performs well, and there are lots of nice little details, like being able to save the browser window position for next time. The Freeware packages are in constant development, and by the time you read this there will almost certainly be a newer version of *Webster* available.

David Dade

Voyager

The *Voyager* software has been 'commissioned' by ArgoNet for the launch of its Internet service (see the special offer in this issue). The software wasn't quite ready in time for David Dade to give it a proper review, but a working version was sent to the editorial office.

Voyager is mostly a suite of special versions of previously-seen Freeware applications, attractively packaged with an integrated launcher application. It is based around the *FreeNet* TCP/IP stack providing dialler, web browser, e-mail and news readers, telnet terminal and an ftp filer.

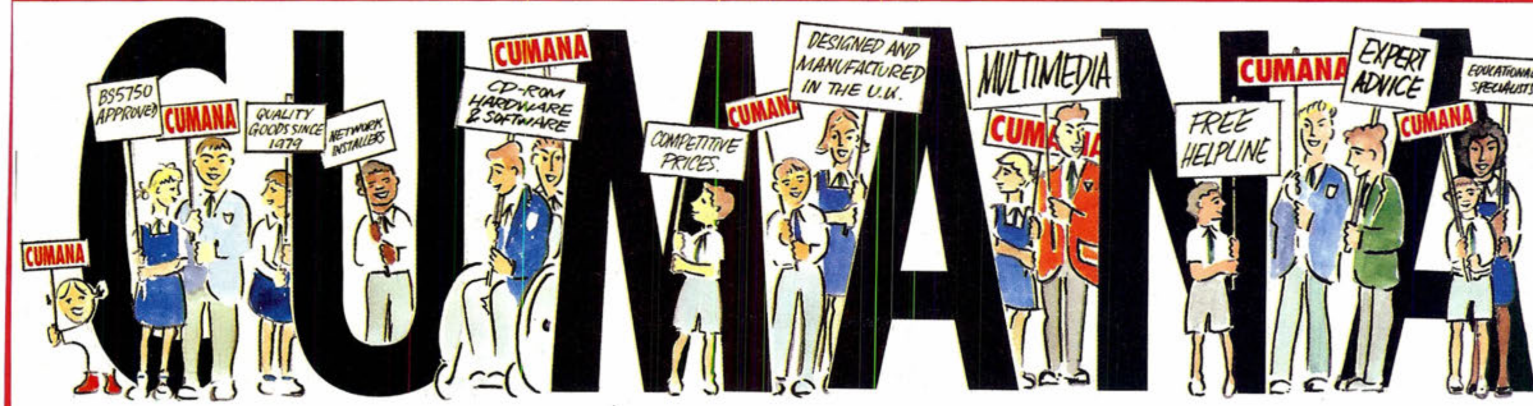
The advantage of this package is that it comes ready-configured for the owner's new *ArgoNet* account and works straight away without further configuration, particularly if purchased with the recommended Sportster modem. The disadvantage is that it's tied to ArgoNet, at least for the moment. Readers with existing Internet accounts have asked if the software will be made available without the *Argonet* account or modem; this could of course be partly achieved by using the Freeware versions that are available.

The Web browser is a thinly-disguised version of *ArcWeb* using the *FreeNet* stack, so much the same comments apply to this as to the *Acornet* package. The Acorn home page took a little longer to arrive than on the other packages, but I couldn't check what the modem connect speed was.

The e-mail and news readers are both nothing special, but the ftp client is excellent, with drag-and-drop and automatic filetyping supported. The Ant ftp client will be better when it arrives, but the *Voyager* one is here and working now.

David Matthewman





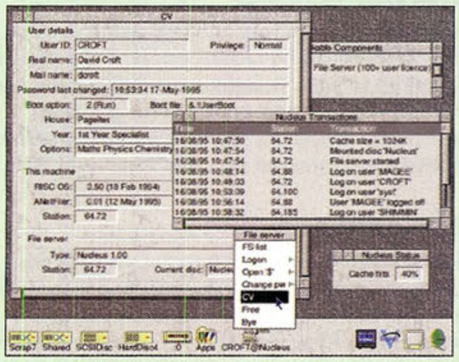
REVITALISE YOUR ACORN NETWORK WITH CUMANA AND YOU WON'T BREAK THE BANK

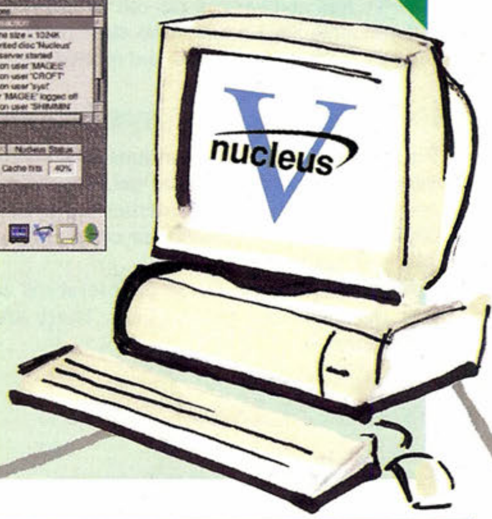
NUCLEUS

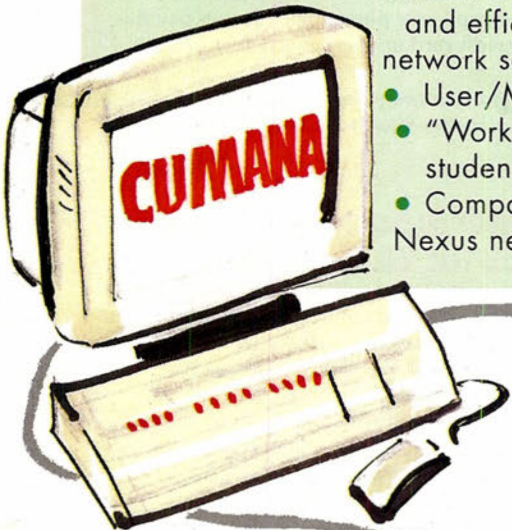
FROM £199 + VAT

The most powerful Acorn file server yet!

- Ideal upgrade from Acorn Level 4 or MDFS
- Much faster than an Acorn Level 4 or MDFS server
- Provides ultra quick and efficient network services
- User/Manager friendly software interface
- "Work grouping" concept, ideal for student project work
- Compatible with Econet, Ethernet and Nexus networks





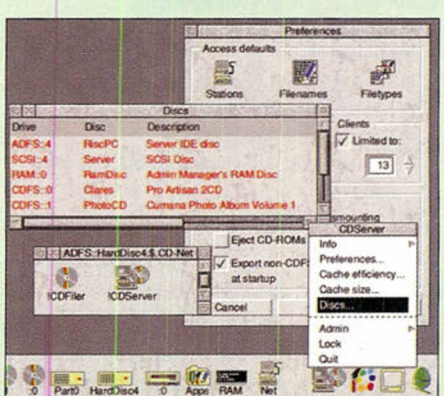


CD-NET II

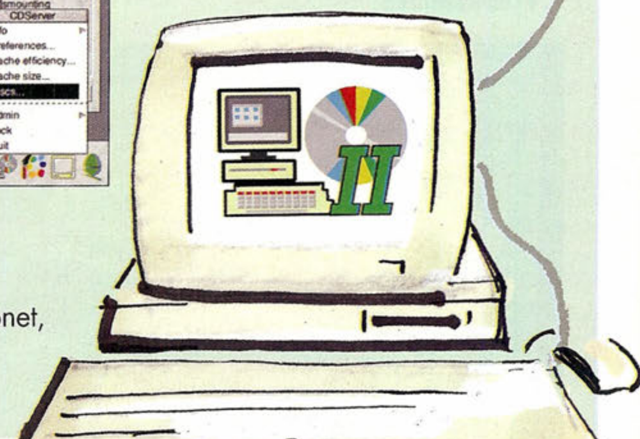
£150 + VAT

The definitive CD-ROM & application serving package

- Super quick service across the network
- Easy management
- Considerable cost savings

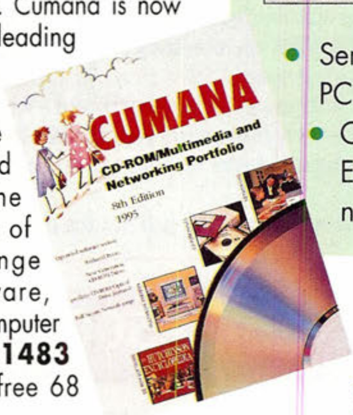


- Serves both Acorn & PC CD-ROMs
- Compatible with Econet, Ethernet and Nexus networks



WHO ARE CUMANA?

Despite it's exotic sounding name, Cumana is a wholly owned UK company which has been manufacturing and supplying high quality IT products to the education market place since 1979. With it's ISO 9002 accreditation, Cumana carries out all of it's research, development, manufacturing and distribution from one site in Guildford. Cumana is now firmly established as the leading network and multimedia supplier to UK schools offering the widest range of CD-ROM drives and network products on the market. Other elements of Cumana's product range include CD-ROM software, complete systems and computer interfaces. Telephone **01483 503121** now for your free 68 page portfolio.



CUMANA

TELEPHONE SALES HOTLINE: 01483 503121

Pines Trading Estate, Broad Street, Guildford, Surrey, GU3 3BH. Fax: 01483 451371

VISA · Access

Internet bargain

The Acorn User Internet Offer

Want to surf the Internet, but don't want to get involved in jargon or complicated configuring? Dying to look at the *Acorn User* web pages, but haven't got an Internet connection? Then you want our Internet pack, exclusively produced for *Acorn User* by ArgoNet, the new Internet company from the same stable as VTi and Eclipse.

Each pack contains everything you need to set up your account, and it couldn't be easier. All you need to do is plug in the modem, run the *Voyager* software pack, and that's it: there are no hidden extras. The software is programmed with your own personal password and account details, and is automatically set up to work straight away, without the need for any further action. And if there are any problems, there's a free number you can call for technical support as part of the package.

If you already own a modem, then there's a pack for you that includes the software and the connection for just £59 inc VAT. The software will enable you to post and receive e-mail, transfer files, surf the World Wide Web and more, all from a very easy-to-use interface.

How much you have to pay

The packs shown below all include your connection to the Internet. As with other services, this has to be paid for on a monthly or annual basis, but with each pack you get free registration (normally £25) and one month's free subscription to ArgoNet. After this month, the cost of subscribing to the Internet is just £12.50 + VAT per month: there's nothing else to pay except your phone bill. You can pay this monthly subscription using your credit card, or you can save £15 by paying for a whole year by credit card or cheque, at a cost of £135 + VAT.

And because ArgoNet can offer local call access to 90 per cent of the population, you can stay online every day for two hours for less that the price of a pint of beer. There are no other hidden costs, so there's never been a better time to join the Information Superhighway.

Offer 1: 28.8k solution £249 inc VAT

If you want the fastest access to the Internet possible, then you need our 28.8k solution. The modem included in this pack runs at a blistering 28,800 bits per second, the fastest speed commonly used on the Internet today. The pack, which has a RRP of over £350, contains:

- A US Robotics Sportster 28.8k modem
- Modem cable
- Pre-configured *Voyager* Internet suite
- ArgoNet registration
- One month's free access
- Pre- and post-sales support via a free 0500 number
- Courier dispatch

Offer 2: 14.4k solution £189 inc VAT

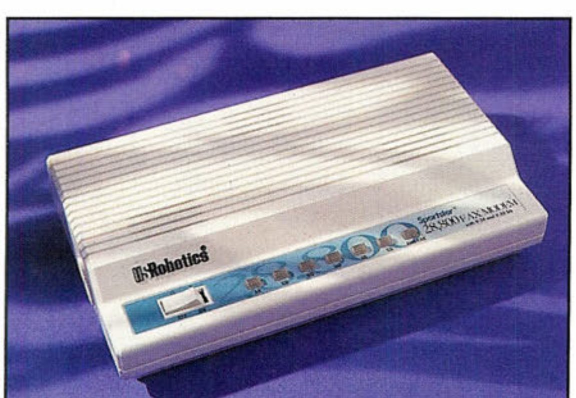
If your budget is a little more modest, then our 14.4k solution is just for you. The modem runs at 14,400 bits per second, the most common speed for Internet users, and easily fast enough even for intense World Wide Web access. The pack, which has an RRP of £300, contains:

- A US Robotics Sportster 14.4k modem
- Modem cable
- Pre-configured *Voyager* Internet suite
- ArgoNet registration
- One month's free access
- Pre- and post-sales support via a free 0500 number
- Courier dispatch

Offer 3: Software solution £59 inc VAT

If you already own a modem, then all you need to take advantage of our low-cost Internet service is the software – a full internet suite offering WWW browsing, e-mail, news file transfer – and the subscription to the ArgoNet service. This pack will work with all US Robotics modems and Hayes-compatible modems: if in doubt, ring our free 0500 pre-sales support number. The pack contains:

- Pre-configured *Voyager* Internet suite
- ArgoNet registration
- One month's free access
- Pre- and post-sales support via a free 0500 number



Note for those with pre-A5000 machines

If you own an A300, A400, A3000 or A540 machine, then you have a slower serial port than in later machines, so you may experience problems running your modem above 9600 bits per second. As a result, if you have an older machine, you may not be able to get the best out of the modems on offer. With any pre-Risc PC machine the 28.8k modem will not run at its fastest speed.

However, if you purchase a fast serial port card – which we can supply for just £79 inc VAT – then you can run your modem faster with no problems. And, of course, a faster modem will save you money on your phone bill...

To order your fast serial port card, just tick the box on the order form.

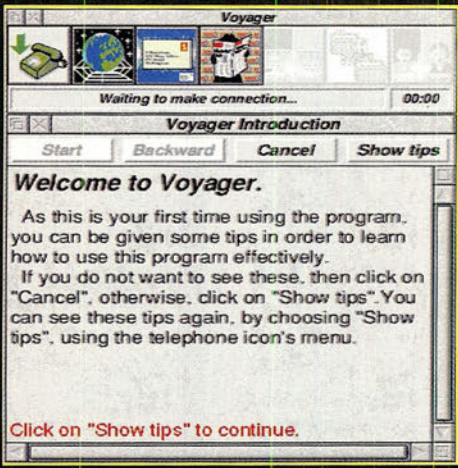
For more information, call free on 0500 585 586

Reader offer

Argo NET

The Voyager Internet suite

The *Voyager* software provided with your ArgoNet connection is tailored to be incredibly easy to use. When you receive the pack, it will be pre-configured to include all the details of your account such as your password, as well as the best and cheapest number for you to call to access the Internet. It couldn't be easier, and no-one else provides such a simple service for Internet connection.



The *Voyager* suite seamlessly combines electronic mail, news reading, web browsing, file transfer and more, and integrates these functions so clicking on a web address in a newsgroup will automatically access that web site, without any more effort on your part. It really is that easy to use.

Other important aspects of the pack include: graphical ftp file transfer using icons and automatic log-on; full news and mail reader with editing, quoting, an address book and so on; web browser with support for virtually all Netscape extensions, hot lists, caching, sound, graphics, text and more; automatic log-on scripts for telnet; and security features to prevent access to certain areas of the net, so you can stop your kids surfing areas they shouldn't.

The *Voyager* pack is the most cost-effective Internet pack available, allowing simple access to all Internet facilities.

The ArgoNet service

When you subscribe to ArgoNet, you get a unique e-mail address – like mmoxon@argo.co.uk – and access to full e-mail, news, web and file transfer facilities, all at a local call rate for 90 per cent of the population. All network links are provided by the well-known company Unipalm Pipex, guaranteeing quality network connections to the Internet in Europe and the United States, and ensuring that there aren't too many users for the modems available, so you don't have to wait ages for a free line (and that's guaranteed).

The ArgoNet service is complete: it gives you access to the full Internet, all without extra charges as there are with Compuserve. Argo Online runs its modem lines at 28.8k, and the technical support provided by ArgoNet is not only excellent, it's totally free. Best of all, as ArgoNet is a sister company to VTi, technical support for Acorn users will be the best in the country, so even if you have problems, there will be someone to help.

ArgoNet will also have its own World Wide Web site, with all the latest news from ArgoNet, VTi and Eclipse, as well as other areas of interest for Acorn users, both home and educational. Its ftp (file transfer) site will contain lots of Acorn-related files, and the news server will give access to well over 10,000 different newsgroups worldwide, including all the Acorn groups like comp.sys.acorn.misc.

The ArgoNet service: it's the best Internet service Acorn users can buy.

Please fill in all sections.

Section 1: Personal details

Name: ____________________

Address: ____________________

____

____

Post code: ____________________

Daytime tel no: ____________________

Section 2: Machine details

Machine: ____________________

Memory: ____________________

Modem (if applicable): ____________________

Section 3: Order details

Please send me __ 28.8k packs @ £249 each

Please send me __ 14.4k packs @ £189 each

Please send me __ Software packs @ £59 each

Please send me __ Fast serial cards @ £79 each

Total cost: ____________

☐ I enclose a cheque/postal order, made payable to 'AU Internet offer', for the above amount.

☐ Please charge my credit card, details of which are in Section 5.

Section 4: e-mail address

We need to allocate you an e-mail name, but to make sure yours is unique, we need three different names from which we will pick one. Please give three names, in order of preference, so for the name 'Mark Moxon' you could choose 'mark.moxon', 'markm' or 'moxy', for example.

Name 1: ____________________

Name 2: ____________________

Name 3: ____________________

Section 5: Subscription payment details

☐ **Option 1:** I would like to pay monthly by credit card (£12.50 + VAT per month)

☐ **Option 2:** I would like to pay annually in advance and save £15 (£158.63 inc VAT).

☐ I enclose a cheque for my pack plus my annual subscription.

☐ Here are my credit card details (Access, Visa or Amex) – please charge me as appropriate.

Card number: Expiry date: __ /__

____

☐ I agree to allow my credit card to be debited monthly in advance after my first month's free access at a rate of £12.50 + VAT per month. I understand that I can give one month's notice to cancel my subscription at any time. ArgoNet will notify me at least one month in advance of any price changes.

☐ I have paid £135 + VAT (£158.63 inc) for a year's access in advance.

I understand that ArgoNet will provide an ongoing Internet connection with private e-mail address and free updates to the *Voyager* access package as they become available, and that ArgoNet will endeavour to the best of its ability to ensure that all services are available 24 hours a day, 365 days a year and will, wherever possible, notify users in advance of changes to service.

Signed: ____________________

Date: __ /__

E&OE. Please send this order form and payment to: Acorn User Internet Offer, IDG Media, Media House, Adlington Park, Macclesfield SK10 4NP. Please allow 28 days for delivery and account set-up. Offer closes 1 December 1995.

☐ Tick here if you do not want to receive promotional material from other companies.

ARM710 upgrade

Some Acorn users believe there is no substitute for power. When Acorn announced the Risc PC last year with a number of upgrades to be released later on, those users started to jump with excitement. Unfortunately, it has been a long time coming; only at the end of July was the first upgrade released – the ARM710. The question is, was the ARM710 worth waiting for and have the bugs been ironed out?

When the Risc PC was first released, Acorn announced fixed prices for future upgrades, such as the ARM710. Acorn has stuck to their original prices; although the RRP of the ARM710 is £125 + VAT, £25 more than the original price quoted, Acorn does refund the remaining £25 upon receiving your Risc PC's old ARM610. There is no real reason for keeping the ARM610, unless considering Taos at a later date, which makes the exchange seem pretty fair.

	Processor		% increase in performance of ARM 710
	ARM710	ARM610	
	Time (seconds)*		
Loading of a 170K JPEG into !FYEO2	7.88	9.81	24.5
Loading of a 170K GIF into !FYEO2	1.81	2.01	11.1
Redraw of the Artworks CanonEOS Picture	10	13	30
Loading/Calculating/Displaying of a FireworkzPro File	11	14	27.3
Executing a Query of a 1000 Record File in Squirrel	2	3	50
Redraw of a Page in Impression Publisher	5	8	60
		Mean	33.8

Table 1 comparing the performance of ARM610 and ARM710 chips.

It is very easy to fit the new processor; simply remove the old ARM610 and then fit the ARM710 in the same place. If you have a 486 co-processor, removing it beforehand makes the whole installation a lot easier.

Upon turning the computer back on, there is no obvious change. Acorn supplies an installation disk, which places a patch inside the *!Boot.Choices.Boot* directory and makes sure the cacheing of the card works properly. The only reason for buying the ARM710 is for increased productivity on the Desktop. Table one shows a comparison between the performance of an ARM610 and an ARM710 fitted to the same 17Mb Risc PC. It shows that the ARM710 offers on average a 34 per cent increase in performance over the ARM610, which is exactly how Acorn said the processor would perform. The software patch that Acorn supplied with the card remains quite transparent to the user, which suggests that the bug fixes have been successful.

The ARM710 is certainly worth buying because the increase in performance can be quite dramatic in some cases. Although 34 per cent may not seem great, use the computer throughout the day and the increase in performance will become apparent. Some users may prefer to wait until the ARM8xx is released, but judging by the press releases it appears that this may not be until 1997.

Acorn had also promised to release an ARM700 with FPA (Floating Point Accelerator) option for the Risc PC. Unfortunately, this has not yet been released or completed, although the card should be released around the time that you read this.

Richard Barlow

Product details

Supplier: Acorn by Post
Address: 13 Denington Road, Wellingborough, Northants, NN8 2RL
Price: £125 + VAT (£25 refundable on return of ARM610)

Pros: Easy to fit • Around 34 per cent performance gain

Cons: Risc PC only (obviously), but otherwise none

PublishArt

Product details

Supplier: SmartDTP
Tel/Fax: (01332) 842803
Price: £35 (no VAT)

Pros: Well presented • Well organised • Good hints and tips

Cons: No installer

Most readers will have some clip art floating around on their hard drive or on floppies somewhere; it seems a good idea when you first see it, but how many of you actually use it to your advantage? Most available pieces of clip art are useless cartoon pictures which would look slightly out of place in a professional newsletter.

PublishArt is directed towards the amateur/semi-professional DTPer who needs to brighten up otherwise boring documents with stylish art. It comes on eight 800K compressed discs, with a total of 13Mb of files. You can buy *PublishArt* in *Draw* or *ArtWorks* format, so it is compatible with all of the Acorn range, including RISC OS 2 computers.

A manual is supplied, and instead of showing every piece of clip art available (as many clip art collections do), it shows how you can use the clip art to make leaflets and manuals colourful and much more attractive. Many examples are shown, from newsletters to tickets, and they are all explained in depth. I found the information in the manual much more helpful to the casual DTP user than the heavy information which came with my copy of *Impression Publisher*.

Publisher, *Style*, *Ovation* and basically any other *Draw* or *ArtWorks*-compatible application including multimedia suites like *Genesis* or *Magpie* will load the files from the *PublishArt* collection, which is obviously of great benefit as they can be used many times.

The graphics are very well organised, and finding a certain image is simple; each sub-category is given a descriptive directory name, which eventually gives a number of files fitting the description. The only real way to improve this package would be to add some kind of installation utility with it, which did all the copying and just prompted the user to change the discs every now-and-again.

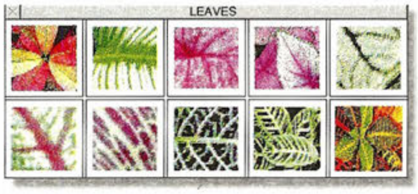
This is not simply a heap of clip art thrown together in a couple of weeks; it's a well-organised collection of stylish artwork to improve any document a great deal. If you are looking for some artwork to enhance the quality of your work, then take a look at *PublishArt*, it could very well fit the bill.

Chris Jackson



A number of files suitable for backgrounds are provided.

A dedicated



I cut out ten leaf details from digitised images using snapshot in *Paint* and collected them in a single directory, then installed them as motifs in *Revelation Image Pro*.

In the material world of furnishing and fashion, computers play an ever increasing role in new digital design. Patterns can be generated and colour combinations explored at the click of a button with great speed. So let's look at the tricks of the trade for Acorn users in the brave new world of textile design, right from the drawing board to final product.

Gathering source material is much easier these days, due to Public Domain image libraries, CD-ROM, Kodak Photo CD and – of course – the Internet. However, watch out for copyright issues, as many of the images may not be totally free for you to use. In my opinion, digitised images showing natural forms such as details from plants, leaves and textures or scanned original drawings have that original fresh flavour that often makes the best designs.

Getting started with Paint

No matter where you look, the repeated image has a large part to play in design. Every day we see commercial products such as wrapping paper, carpets, clothing, wallpaper or packaging etc. with lively patterns, often in whole ranges of different colours. It is surprising to find out that *Paint* is a good starting point when it comes to repeating images – and it comes free with the machine. To begin with, try a small freehand drawing filling about one quarter of the screen. Then, using the small camera icon, it is possible to copy a portion of the drawing leaving a convenient rectangle guideline, so that you can accurately position and copy it again.

Try painting filled shapes over your original design with the OR, AND, EOR buttons pressed, and wonderful colour changes can be made. The designs can also be flipped vertically or horizontally and rotated if required.

Paint also has the extremely useful Snapshot facility – accessed from the icon bar – for capturing areas of the screen and saving them as small sprites.

Other bitmap editors

Artisan 2 (£61.95 inc VAT from Clares, the earlier incarnation of the more powerful *ProArtisan* and *ProArtisan 24*) is a powerful Mode 12 (16 colour) paint package which is probably the only bitmap software currently available which appears to be specifically designed with textiles in mind. Before you begin, it's a good idea to switch on the useful interactive help function on the main menu. Small freehand patterns can easily be drawn and cut out as sprites before moving to the Goodies menu containing the excellent 'Screen sprite plot' option. This allows the sprite to be repeated in different ways including options such as No drop, Half drop and Full drop which are textile designers' terms describing the position of a repeated image.

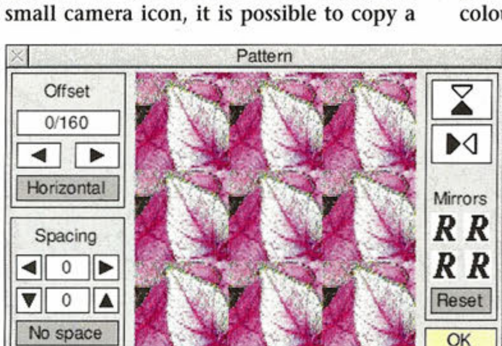
Having saved the image, you can try out the excellent 'Palette change' option on the Draw menu. You can redefine the palette and change all the relevant colours in the design by dragging bars in the window. The colour changes happen on screen, so you can create and save a 'colour series' from the original.

The *Spot* application on the *Artisan 2* system disc enables you to produce both process and colour separations so that the sprite even has registration marks printed. This means that if you want to create a stencil for a silkscreen print, just print out the spot colour separations and enlarge them through a photocopier for tracing onto stencil paper. Before you attempt this, a word of advice; to begin with keep the number of colours in your design to a maximum of six. It's extremely interesting to try this with high-contrast digitised images such as self-portraits

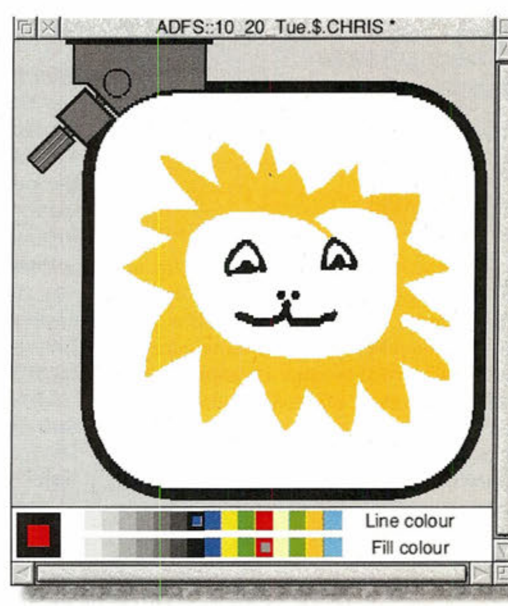
Revelation Image Pro (£49 + £3 P&P + VAT from Longman Logotron) can also be pressed into service by the textile designer. One of the best ways to use this art package for textile design is to create a directory containing about ten small sprites. This directory can then be loaded into *Revelation* by dragging it into Motif on the main menu, which installs the resource images for access when required. Thematic directories of work can be developed once you get started.

Poetry in motion

Creating a computer-generated artefact such as a badge or even a quilt is possible using the Poem Embroidery machine (around £1000 + VAT from Creative Textiles). At first sight it resembles a small robust plastic sewing machine which connects to the serial port of the computer. Once connected the Poem is controlled with the supplied *Poetry* software which



To repeat your design on a page in *Revelation Image Pro* select the pattern and then use the R icons and the offset and spacing arrows to repeat it in a number of different ways. OK saves the repeat details – the pattern can then be 'painted' onto a new page by using the paint roller on the 'Motif tiled' setting. The 'Colour shift' option will create a colour series from your original.



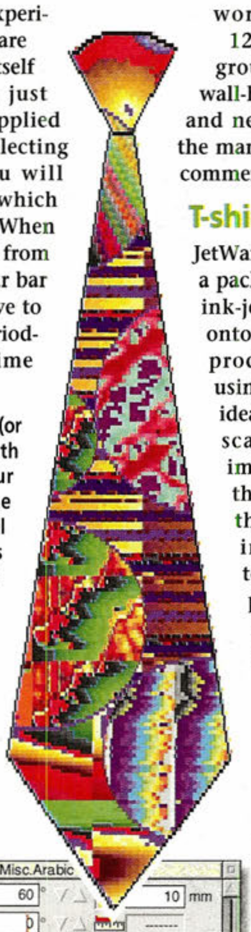
The Regent Special School in Sandwell decided to design its school lion mascot using Poem and the *Poetry* software, seen here. It was an exciting experience for the children to see their drawings on screen translated into a real embroidered design. After they were produced they were all stitched together as a unique large commemorative quilt; the final result looked highly professional. The lion designs were also used as the visuals for a school calendar which was sold to Sandwell schools.

follower of fashion

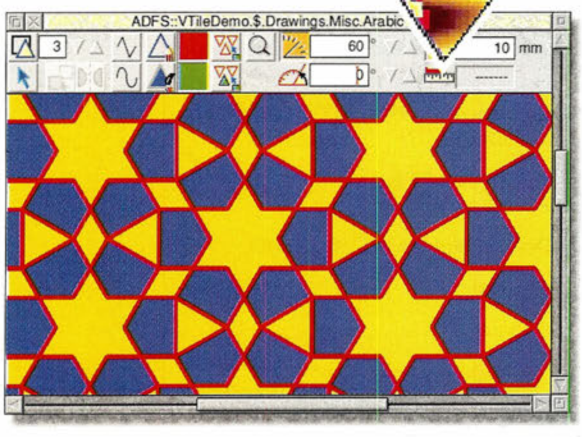
Pete Worrall takes a look at how to get ahead in textile design.

can be used for freehand artwork, as well as accepting imported *Draw* files and sprites. Work can be saved as a *Poetry* file or sprite.

Provided you have had some experience of *Draw* and *Paint* the software is intuitive. Preparing the Poem itself for action is straightforward; just stretch your material in the supplied hoop and thread the cotton. Selecting Embroider on the main menu will access the Poem control panel which will set the machine in action. When stitching, the colours are stitched from left to right taken from the colour bar in the main window and you have to change your coloured threads periodically. The average stitching time from start to finish is approximately 30 minutes, but this varies depending on how many colours there are in the design.



One of my earliest attempts at *haute* (or *bas*) *couture* was designing ties with *ProArtisan*. My Integrex 132-colour printer had great possibilities at the time because it took a continuous roll of paper, so I joined three screens together after drawing a tie outline template which I filled with psychedelic patterns generated in *Arcol*. The three screens were printed producing a larger than life tie.



Versatile from Dial Solutions is excellent for generating repeated patterns.

The maximum size of the finished work is fairly small – around 12cm² – so it is best suited for group projects such as quilts or wall-hangings. It bridges traditional and new technology and allows for the manufacture of artefacts to a high commercial standard.

T-shirt designs

JetWare transfer paper (£49 + VAT for a pack of 100 sheets) can be used in ink-jet printers for image transfer onto fabric. All you have to do is produce your design on screen using an art package. It's a good idea to experiment with digitised, scanned or Kodak Photo CD images. Don't forget to reverse the image before printing onto the paper (which is especially important if you have used text). Feed the special transfer paper into the printer so that the unmarked surface receives the print.

After printing, use an iron to transfer the image onto the T-shirt. The garment or fabric should be 100 per cent cotton or any cotton-poly blend; full instructions are included with the papers. Of course, if you want to look at your work prior to printing, why not digitise yourself wearing a T-shirt and cut and paste the design onto it for a sneak preview?

Tessellation software

Tiling geometric and freehand shapes is made easy with *Versatile* (£45 from Dial Solutions). Tiles can be drawn by clicking on the polygon tool; they snap into place smoothly on screen and can be saved as a *Draw* file if required. Complex designs such as Arabic patterns can be generated with this software. For anyone hooked on simple or complex tessellations this software is an essential purchase.

While a definitive textile package is yet to emerge for Acorn users, there are still plenty of creative ways to explore and develop textile design solutions using what is available. AU



The 'Screen sprite plot' option in *Artisan 2* allows you to experiment with different arrangements as I did here with my freehand flower.

Contact details

Clares Micro Supplies
Tel: (01606) 48511
Fax: (01606) 48512
E-mail: sales@clares.demon.co.uk

Creative Textiles
Tel: (01535) 213005

Dial Solutions
Tel: 0113-232 6990

Longman Logotron
Tel: (01223) 425558
Fax: (01223) 425349

Quill Marketing
Tel: (01603) 748002
Fax: (01603) 748003



WACOM PRESSURE SENSITIVE GRAPHICS TABLETS

It's time to get *sensitive* about the way you *create* your graphics

....

Many computer users feel that a graphics tablet is more natural to use than a mouse and without doubt it gives a much faster, smoother and higher resolution response. The mouse remains functional and can be used at the same time as the pen — however the pen has such a natural and precise feel, you will probably prefer it for many operations such as moving windows, drag and drop, region selection etc.

The new (approximately A6) ArtPad tablet offers a superb specification, even by Wacom standards; resolution exceeding 2000 dpi, 200 samples per second and 256 levels of pressure. All Wacom tablets include a cordless pen for added ease of use and flexibility.

The tablets are pressure sensitive, so in combination with suitable applications they can produce realistic effects such as variable width (the Eesox ArtWorks pressure sensitive tool) or variable density airbrush painting (PhotoDesk). The Computer Concept's drivers will be compatible with these and other software that can take advantage of the pressure information, such as Studio 24 and DA Picture.

Computer Concepts can supply the tablets with either Photodesk or the Eesox Pressure Tool at special prices. **PHOTODESK** is a photo retouching package from Spacetech, which offers a wide range of advanced image manipulation features; for example an airbrush, paintbrush and magic wand, full 24 bit colour support, the use of virtual memory, OLE with Impression, complete undo, effects such as colouring, toning and masking, motion blurring, cloning and smudge and smear.

The package contains the Wacom tablet (A6 ArtPad, A5 or A4) and manual, a cordless pen, Computer Concepts driver software suitable for all models of Acorn RISC computer (A3000 must have serial port upgrade) and PC drivers. Requires 1Mbyte or more.

Price: A6 ArtPad & drivers: £169 + VAT (£198.57 incl.) A5 tablet & drivers: £399 + VAT (£468.82 incl.)
A4 tablet & drivers: £549 + VAT (£645.07 incl.)

ArtWorks Pressure Tool with tablet: add £10 + VAT (£11.75 incl.)
PhotoDesk with tablet: add £125 + VAT (£146.87 incl.)

ArtWorks Pressure Tool: £39 + VAT (£45.82 incl.) PhotoDesk: £169 + VAT (£198.57 incl.)

Computer Concepts Ltd

GADDESDEN PLACE • HEMEL HEMPSTEAD • HERTS • HP2 6EX • TEL. 01442 351000 • FAX 01442 231632 • Email: Info@CConcepts.co.uk

Club Corner

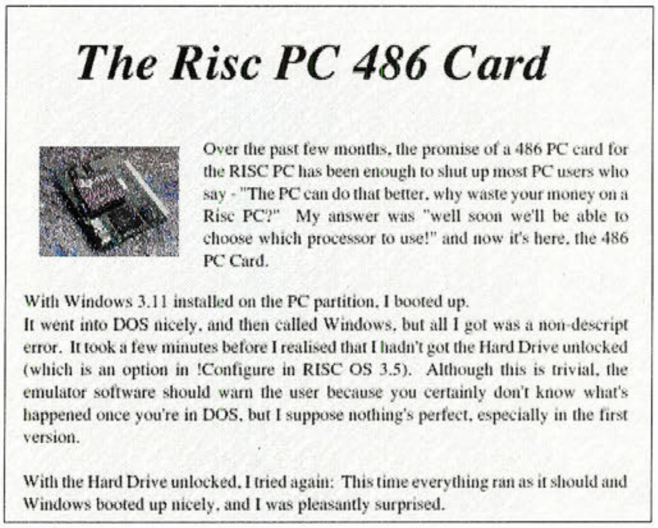
Chris Jackson enthuses about the revival of a disc magazine produced by the Quantum group.

NewDawn was one of the first Public Domain disc magazines to hit the Acorn and lasted three issues before it was given a back seat by its producers Quantum to make way for more important productions such as the highly acclaimed *Liquid Dreams* and *Queue The Music*.

NewDawn was a good magazine when it first came out, and mutated into an excellently produced and presented magazine by the third issue. The demise of the magazine was a great shame, and I am very glad that Quantum has decided to bring it back to life.

Chris Hubball, the new editor of *NewDawn*, tells me that the magazine has been revived and will be received by Acorn users with greater enthusiasm than previous issues of *NewDawn* because of the many reviews and almost endless amount of articles, most of which are based around computing-related topics. All of the articles in the magazine are of the highest quality and graphics are used in abundance in the articles, which makes a nice change since the use of graphics is usually kept to a bare minimum on disc magazines.

When double-clicked upon, the *NewDawn* application loads an icon on the iconbar which proceeds to move around in circles revealing the words 'Quantum presents *NewDawn*', which looks very professional. The Desktop front-end allows you to set various options like a background sprite for the text and whether the music should be played in the Desktop or not. You can also access the *NewDawn* resources directory by clicking on an option from the iconbar menu, which contains a number of files that link into the articles in the magazine.


The Risc PC 486 Card

Over the past few months, the promise of a 486 PC card for the RISC PC has been enough to shut up most PC users who say - "The PC can do that better, why waste your money on a Risc PC?" My answer was "well soon we'll be able to choose which processor to use!" and now it's here, the 486 PC Card.

With Windows 3.11 installed on the PC partition, I booted up.
It went into DOS nicely, and then called Windows, but all I got was a non-descript error. It took a few minutes before I realised that I hadn't got the Hard Drive unlocked (which is an option in !Configure in RISC OS 3.5). Although this is trivial, the emulator software should warn the user because you certainly don't know what's happened once you're in DOS, but I suppose nothing's perfect, especially in the first version.

With the Hard Drive unlocked, I tried again: This time everything ran as it should and Windows booted up nicely, and I was pleasantly surprised.

The latest issue of *NewDawn* contains an excellent article on the Risc PC 486 card. Note the attractive use of a textured background and the shot of the PC card.

One thing that has been concentrated upon this time in *NewDawn* more than previously is the world of communications. Cobra (the old editor of the magazine) has conducted a number of interviews with Sysops from some of the best BBSs around the country. There are also a number of articles on the subject aimed at everyone from beginners to sysops.

The graphics in the magazine are excellent and make the magazine very colourful. Light music is played in the background, as in previous issues, and of course it was all written by the Quantum musician, Exel (Stuart Malcolm to the rest of us) and played by the highly-acclaimed *Queue The Music* pro-tracker player by Phoenix (Stephen Harrison). The graphical interface written by Chris Hubball is excellent and allows you to easily move between pages by clicking icons in the text. All the interface has a 3D design and looks very impressive. Icons can be pressed in an article to move to a certain page in the magazine, which allows for a hypertext-like engine, but Chris tells me he has tried to keep the actual workings as simple as possible so that anyone can operate it.

One article I found to be a very good read was the review of the 486 co-processor card for the Risc PC which contained a lot of useful information about the use of the card with Windows applications. I also enjoyed the review of the excellent *PhotoDesk* software, which showed how the reviewer had used the package to cover over a large section of an image.

The magazine can be found on one of the Acorn BBSs or at a PD library, and is an 800K archive which shouldn't take long to download or fill much of a pic-and-mix collection.

Conclusion

NewDawn 4 is another example of the excellent work that can be produced by the Quantum programmers and writers. Get a copy from your local PD library or BBS and you won't be disappointed. I can only hope that the take-up of this issue will convince Quantum that they should start making the magazine on a regular basis. AU

Contacting me

I would be interested to hear from any Acorn oriented clubs throughout the world (especially foreign clubs) to cover in this article. You can get in contact with me by e-mail at Chris.Jackson@northarm.fidonet.zetnet.co.uk, via my own BBS 'The Northern ARM BBS' on (01274) 530831 (upto 14k4), RiscNet#7:44/101 or post at The Club Page, *Acorn User*, IDG Media Ltd., Media House, Adlington Park, Macclesfield SK10 4NP.

Skillsware has produced a unique piece of educational software based on the Thames Water Ring Main. Mark Moxon took at trip to Thames Water and discovered that there's more to water than meets the eye.

Ringing the

There are lots of tiny things that make life that little bit more interesting, but one of the coolest is discovering that something you thought was a sort of everyday *thing* is in fact rather important.

For example, I drive through Holland Park in London at least four times a week, and there's a roundabout with a strange-looking sculpture in the middle. It's a kind of tall glass cylinder, looking not entirely unlike a large hypodermic syringe, with blue water spurting around inside. The level of the water varies according to some strange law of the cosmos, and it manages to make that joyous journey through the capital's smoggy haze almost worthwhile.

I always thought it was just *there*, for the hell of it, but I was wrong. You see, it's actually the top of one of the shafts leading down to the Thames Water Ring Main that supplies water to London. Heard of it? Probably not, but for all the right reasons.

Digging for water

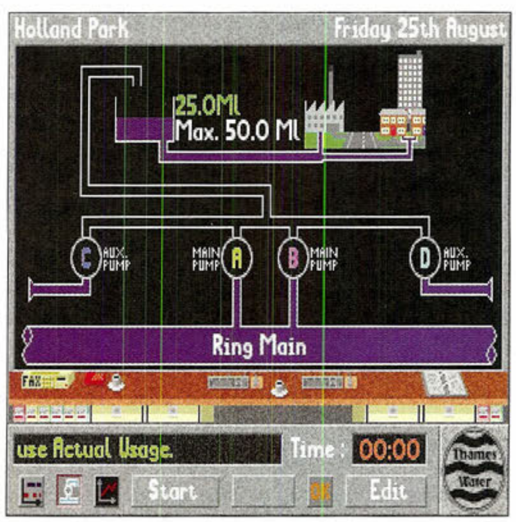
The Thames Water Ring Main is big. Huge, in fact. It's a vaguely rectangular tunnel that lies under London, is longer than the Channel Tunnel, and is big enough to drive a taxi through. It's water capacity is enough to fill 18 Albert Halls. In fact, it's the largest engineering project of its type *ever*, and was completed with almost no traffic stoppages, two years ahead of schedule. Because London is on clay, tunnelling was surprisingly easy, with the only serious challenge coming from the Streatham/Wimbledon fault, and at a total cost of £250m, the project was both cheaper and more eco-friendly than digging up the already chaotic streets of London.

The Ring Main works by gravity. Water enters the Main from the water treatment works and travels round both halves of the the ring under the influence of gravity. It is then pumped out at 14 sites round the region to be distributed locally, so Londoners will have plenty of water well into the next century. It's also one of the reasons why we Londoners could hose down our cars and take long, hot baths this summer, when other areas were on standpipes.

James Pond to the rescue

So, Thames Water has a phenomenal piece of engineering, but none of us have heard of it. It just goes to show that you only hear about things when they go wrong or they're delayed – witness the Channel Tunnel – but there's a serious amount of potential for education in the story of the Ring Main.

'We wanted to promote the Ring Main from a normal press angle, but also from an educational point of view,' says Claudette Andrews of Thames Water. 'So we put out a bid for educational projects based on the Main, and we chose Skillsware. It's worked out very well, especially as we have no other computer products at present.'



In *Running Water* you have to control the pumps A and B over 24 hours to minimise pumping costs and water waste. It's not easy.

Simon Lovesey, chief mentor at Skillsware, came up with the idea for using that colourful character James Pond in the package, an obvious choice as Gamesware had recently converted *Robocod: James Pond 2* for the Acorn platform.

'It's been a real eye-opener for us,' says Simon, 'seeing how the Ring Main works, and how complex it all is. We worked very closely with Thames Water, particularly Mike Brophy, modelling scenes in the program directly on the real-life situation at Thames Water. For example, the shot of the water controller's desk includes Keith the water controller, looking just as he does when operating the water flow on the main.'

'The controllers were really impressed,' says Claudette. 'The Chief Executive saw it and thought it was great: he remembers when all the controlling was done on paper, so that says something.'

'We showed the package to schools for feedback,' explains Simon, 'and the messages from this altered our original design quite a lot. Teachers told us that they could never tear their students away from Gamesware games, and after talking to them we realised that the combination would lead to a useful and popular educational resource. It's worked out rather nicely.'

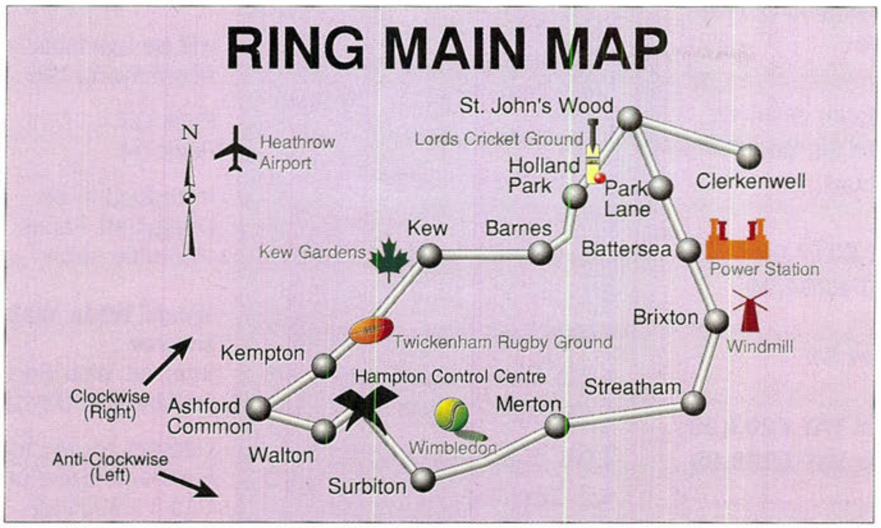
'And it's great for us,' added Claudette. 'The kids learn all about the water cycle, so it's not just a game, it's an educational tool, and it's all good publicity for the work we do at Thames Water. For example, at an industry event where we got students to use the program, one group got a lower score than their friends. They blamed this on having smaller reservoirs and adverse weather – they were justifying their performance in realistic terms, and were understanding exactly what we have to do every day with water supplies.'

The primary package

So what does the package consist of? Well, it's split into two separate programs: *James Pond Underwater Agent* for the primary sector, and *Running Water* for secondary Key Stage 3-4 students.

These come in the same box, with one manual between the two.

James Pond Underwater Agent is



A simplified map of the Thames Water Ring Main.

Conclusion

The *James Pond* package is a classic example of the successful combination of real life, fun and education. Its value in schools is obvious, but I would highly recommend it for home use as well, and not just for those in the London area. The concepts are universal, and all children will benefit from understanding our water systems.

James Pond Underwater Agent/Running Water is highly recommended, despite its price tag. It'll make sure you don't take water for granted, and it'll ensure that you can tell all your friends what that thing is in Holland Park roundabout; excellent stuff.

changes

instantly recognisable as an arcade game based on the character of James Pond, but there's much more than just playing a game. As James Pond you have to guide your friend Ronnie the Raindrop through the various processes that takes water from the source to the tap, working your way through the six stages: source, storage, treatment, ring main, service and distribution.

For each of the stages you get shown a number of screens full of information about that particular stage. For example, in the 'source' stage, you find out about different types of cloud and why you shouldn't swim near collection pipes; it's important to take all this information in, because you're asked multiple choice questions about it later, after the arcade section. Each of the six areas has a number of different sections, and by the time you've got through to the kitchen tap, you've learned all about the processing of water. It's great fun, and educational psychologists will have endless fun showing that this proves the 'carrot before the donkey' principle of education.

The manual also contains a large number of suggested activities linked to the concepts in the game – like making a home-made water filter – with a table for each showing which areas of the National Curriculum are covered.

The secondary package

Running Water is a different kettle of fish all together. While *James Pond* is a game with educational content, *Running Water* is an educational program that simulates the job of the Thames Water controllers. Your aim is to make sure that your chosen area of London doesn't run out of water, while keeping pumping costs down to a minimum.

There is a lot of information to balance, and it takes quite a few goes to get the hang of the program. Almost everything is here: weather reports; information databases covering electricity costs, population demands and so on; balancing your reservoirs; controlling the individual water pumps that control your supply. The first few times you'll end up with massive costs – and, if you're like me, flooded reservoirs and maddened customers – but that's the beauty of this program. You keep trying, working out *why* you went wrong, and in the process you learn all about the Ring Main.

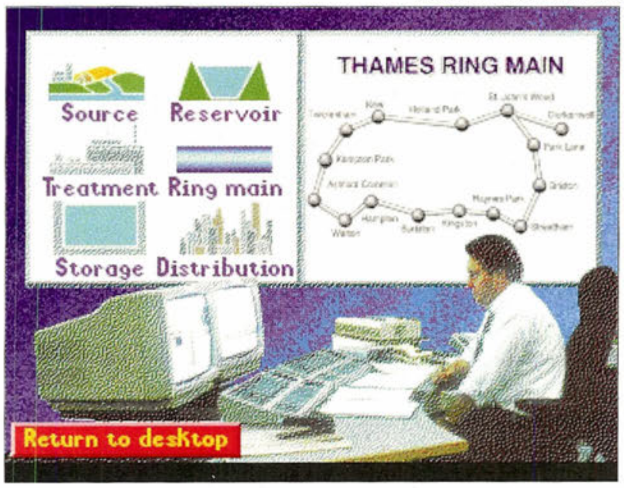
As if the simulation wasn't enough, you can export enough data from the program to keep higher level statisticians happy for ages. The data used is all genuine, so the program can be used to provide graphs and figures for all sorts of projects on the Ring Main, in Maths, Geography and Science. AU

Contact details

Product: James Pond Underwater Agent/Running Water
Supplier: Skillsware
Tel: (01703) 456523
Price: £35.99 inc VAT. Site licence available separately.

Pros: Makes learning fun • Highly relevant, especially after this summer • Excellent teachers' notes included

Cons: Better value for schools than homes



In *James Pond* you choose the six stages from the main control window, which shows Keith the controller hard at work.



Cheap storage

The Cumana proTeus drive gives you a combined high-speed CD-ROM drive and unlimited storage system in one box. Acorn User has teamed up with Cumana to give its readers this exclusive offer.

If you are considering buying one of Cumana's revolutionary proTeus drives for your machine, then this offer is for you. For the normal RRP of a proTeus you also get:

- a re-writable optical cartridge worth £39 + VAT
- a copy of PaperOut – Cumana's software to read Electronic Books – worth £49 + VAT
- a copy of SpeedyCD, Cumana's software to improve the performance of the CD-ROM drive worth £17.50 + VAT

all completely free. That's over £120 worth (including VAT) of extra software and hardware. If ordered with a SCSI interface Audio and Photo CD player software is also provided.

Even better, if you are coming to the Acorn World show you can buy a proTeus there through this offer and save on any delivery charge (£10 + VAT within the UK). Simply fill in the form below and hand it in at Cumana's stand.

Please note that the recommended minimum specification for a proTeus drive is 4Mb RAM, RISC OS 3.1 and a hard drive. You will also need a SCSI card – you can order one with the proTeus if you don't already have one; note that an A30x0 or A4000 series will need the SCSI card to be fitted to the internal expansion slot, so this slot will have to be free. With these limitations in mind, a proTeus may be used with any Acorn RISC OS computer except the A4.

Re-writable optical cartridge

This disc is based on optical phase-change technology and offers a full 650Mb of re-writable storage. It is stored in a robust plastic case to avoid damage and may easily be filed away when not in use.

To the Desktop, this appears just like a normal SCSI hard disc, and may be partitioned and formatted in the same way. One disc is supplied free with any proTeus sold through this offer.

Speedy CD software

Even a quad-speed CD-ROM like proTeus is slow in comparison to most hard discs. *SpeedyCD* improves matters by using cacheing techniques to look ahead and anticipate the user's requests, improving the apparent responsiveness of the drive.

SpeedyCD is supplied free with this offer.

PaperOut

This software, free with the offer, allows Electronic Books (EBs) to be used in a normal CD-ROM drive such as the proTeus. EBs are small 8cm discs developed by Sony for use with the Sony Data Discman. Over 130 titles are available (a catalogue is supplied with the software) including the *Hutchinson Guide to the World*, the *Chambers Science and Technology Library* and *The Concise Oxford Dictionary and Thesaurus*.

Order Form

I would like to order:

...proTeus internal drive(s) for a Risc PC	£549 + VAT each
...proTeus external drive(s) for an Acorn RISC OS computer	£649 + VAT each
...proTeus internal drive(s) for a Risc PC with a SCSI II card	£699 + VAT each
...proTeus external drive(s) for an Acorn RISC OS computer with a SCSI card & cable	£699 + VAT each
...proTeus external drive(s) for a Risc PC with a SCSI II card & cable	£799 + VAT each

Please add £10 + VAT to cover postage within the UK. For orders outside the UK, please ask Cumana ((01483) 503121) for postage rates. No postage is payable on orders placed in person at the Acorn World show.

I enclose a total payment of:________________

I wish to pay by:

☐ Cheque/Postal order (made payable to Cumana Ltd)

☐ Credit card (VISA/Access/Barclaycard)

Expiry date: [/]

Card no: [ ][ ][ ][ ]

(Official orders from UK educational establishments are welcome – contact Cumana for details.)

My computer is a: ....

Name: ....

Address: ....

.... Postcode: ....

Daytime phone number: ....

☐ Please tick here if you do not wish to receive promotional material from other companies.

Send your completed order form to: Acorn User proTeus offer, IDG Media, Media House, Adlington Park, Macclesfield SK10 4NP, or take it to the Cumana stand at Acorn World. Please allow 28 days for delivery from when we receive your order. To qualify, all orders must be received by the end of December. E&OE.

Letters

The cost of images

As the developer of the *PhotoBase* software and the Editor of the Hulton Deutsch CD-ROMs, I was naturally pleased to see the *PhotoBase Decades* CD-ROM from Longman Logotron mentioned in your last issue.

Your reviewer suggested that the discs were rather expensive as resource materials go. In defence, I would like to point out that Hulton Deutsch Collection Ltd charges design studios and publishers around £75 per usage for images from its photo library. Once this is realised, 2500 easy-to-find images per disc at £49 + VAT begins to look like a real bargain – especially when the user has unlimited use for educational purposes and within the purchasing site for lectures, presentations, projects, DTP, montage work and even T-shirt printing.

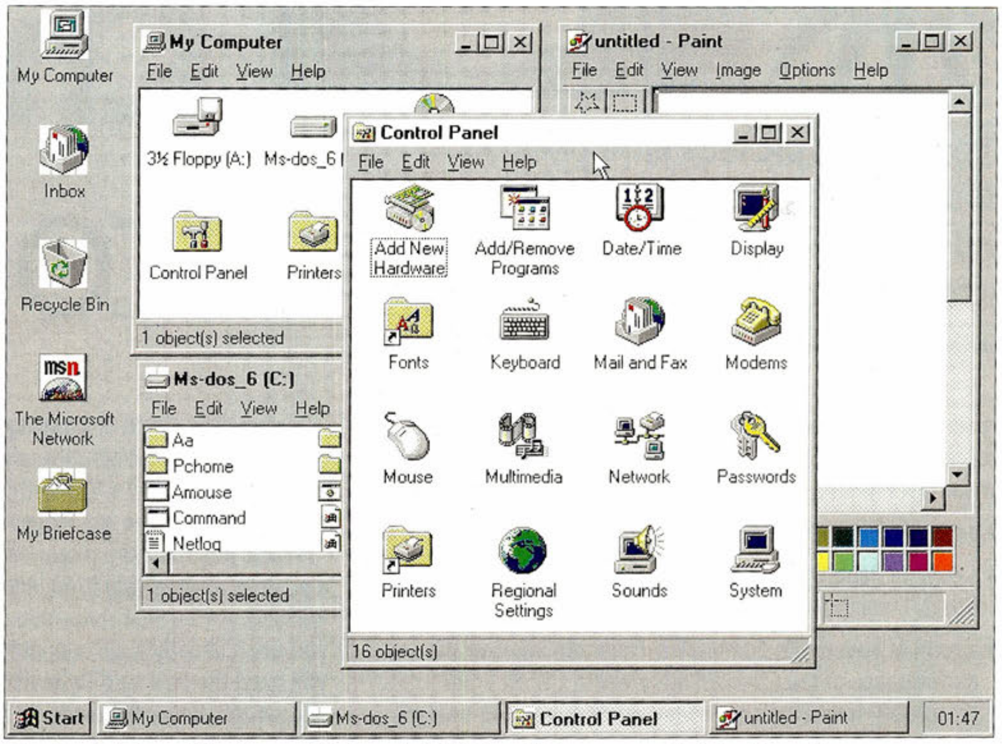
If that were not enough, every CD-ROM includes a site licence copy of the *PhotoBase* application. This can be used with the user's own collection of images to extend the database or to develop entirely new resource libraries, archives of children's work, slide-shows and so on.

Incidentally, if anyone does want to use any of the images commercially, they can be ordered direct from Hulton Deutsch (21 – 31 Woodfield Road, London W9 2BA) using the *Decades* filename or access code.

Mick Cooper
Cambridge

Well, what we said was that at £49 per disc this was not a cheap resource. That doesn't actually imply that the disc is bad value, rather that schools on a limited budget should think carefully before buying the complete six-disc set.

Having said that, it is true that people often do not appreciate that the images on CD-ROMs – or the Internet – are usually owned by someone who will often charge a substantial fee for their use. Looked at in this context, many image collections represent great value for money. (DM)



A familiar interface with a few good features, but Windows 95 shows no real technical innovation.

Charging for support

Over the last few months, I have noticed various references and comments in *Acorn User* about companies charging for technical support. I believe it is a big mistake for software companies to do this, particularly in the small Acorn arena.

The major objection to charging for support is that it cuts companies off from their users. Companies making other products, for instance cars, clothes and so on are producing a tangible product. This means they can immediately see what has worked and what hasn't, and goods returned tell them exactly what needs correcting. They can also easily compare their goods with those of their competitors.

Software companies, on the other hand, produce an effectively intangible product, and their users generally do battle with the software alone and in private. If there is a problem and the manual doesn't help, who do the users turn to? Sometimes it will be magazines like *Acorn User*, sometimes their 'local Acorn dealer' *if* they have one, or it may be a knowledgeable friend, but in many cases it will be the software company.

Now, no other type of company would *dream* of charging its customers for their opinions and the problems they found. On the contrary; letters saying 'thank you for your comments' and free vouchers are much more likely. Software companies, on the other hand, see nothing wrong with charging.

Okay, no-one yet has had to pay for the privilege of reporting a genuine bug, but 90 per cent of user problems arise from minor quirks of the program. It's extremely frustrating to be stopped dead by something you know to be trivial, but know that if you ask for support you face a charge of ten or twenty pounds. Users in this position will usually struggle through, getting more and more frustrated and wasting more and more time, until they eventually chance on the 'correct' way of doing things. As in: 'Oh, I needed a space *and* a semi-colon – what a stupid way of doing it.' (a genuine *DBase* quirk, incidentally.)

Meanwhile, a company that gives free support will have been telephoned by that user long before he reached the hair-tearing stage, and consequently the user will retain far more goodwill towards the company. And the company will get to hear about the quirks of its programs that keep tripping people up. Yes, free technical support does cost money, but dissatisfied, frustrated users can be even costlier. I hope I don't need to further labour the point.

Simon Smith
Twickenham

Most software companies in the Acorn market are more than happy to give free support to their customers, often for precisely the reason that you state, although it can sometimes call for deep reserves of patience when a user appears to be being particularly obtuse. Of course, even the free technical support given by some companies could be improved ... but that's another story. (DM)

Windows when?

Did anyone read the review of Windows 95 in the *Telegraph* on 24 August, page 23? It said a very interesting thing about Acorn; something I did not expect to see: (I quote) '...most people can't explain what it (Windows 95) is or does, and those who can regard it as inferior to what has been available for years from rivals such as Apple and Acorn.'

It's good to know that Acorn still gets a look in when 80 per cent of the software market is held by Microsoft.

On the one o'clock news that day, the newsreader read a feature on Windows 95 and what is expected of it – Microsoft intends to bundle a free Internet access point with the later copies of the software, but there is much controversy as to whether they are doing the right thing or not.

I hope Acorn continues to give its best, especially with the launch of the new machines and the upgrade for Risc PC owners.

Richard Sage
Clwyd

I'm sure that Acorn will. I always do a double-take whenever I walk past a PC running Windows 95 these days – it really does look so like RISC OS in many ways. I felt that Douglas Adams summed the launch up best when asked what percentage of Windows 95 was hype and what percentage was technological innovation. '100 per cent hype: zero per cent innovation,' he replied. Of course, he's a Mac fan, but most Acorn enthusiasts would agree. (DM)

Bare bookshelves

I have recently considered replacing my A4000 with a new Risc PC. I am sure the quality of the new machine will be excellent. The biggest doubt I have about buying a machine is the complete absence of any books: reasonably priced or not.

I visited Waterstone's in Leeds where I found more books about the 8-bit Amstrad PCW computer and CP/M than Acorn computers. Books make a computer visible in the market place.

They also build confidence in people. No matter that most of the books about Windows or PC applications are repetitive or badly-written. Books are a powerful marketing tool.

I would like to suggest that Acorn, as part of its marketing strategy, commission books about all the major applications used on Acorn computers; books aimed at teachers with lots of projects for students using Acorn computers; there also need to be books about programming Acorn computers. Apart from informing people these books will raise the profile of Acorn computers.

When these are written, every university and college library should be sent copies: free and gratis. At the very least, Acorn should make sure the Programmers Reference Manuals are present in all universities along with other technical documentation.

Graham Telfer
Bradford

That suggestion does have the familiar 'how to bankrupt Acorn in five minutes' ring about it, although I couldn't agree more about how Acorn's presence would be helped by a strong showing on bookshelves.

The real question is 'who pays?' Acorn's in enough difficulty as it is, and schools hardly have the budget to buy all the computer equipment they need these days, let alone an individual guide to every piece of software they own.

At least Beebug, with its *PC Survival Guide* and others to follow, is publishing Acorn-related books and in quite minority-interest areas. They may not be appearing on the bookshelves across the country, but they exist. (DM)

Viewpoint

This is where it's traditional for the editor to sound off about whatever seems to catch his or her attention that month. As the incoming editor, it might seem appropriate for me to let you know what changes I have in store for the magazine.

Well, this column – the viewpoint – is definitely on probation. I've never been a fan of rambling editorials which serve no other purpose than to make you hurry to read the bits that the editor *didn't* write. It's not as if I don't have enough other areas of the magazine in which to make my views and opinions known.

Mind you, if they're coming out too strongly in the other articles then I'm not doing my job properly. Keeping the magazine balanced is one of my main priorities, and that's not going to happen if I let the personal bees in my bonnet (and yes, I have a few) creep onto every second page. Perhaps the viewpoint column serves as a safety valve where the I can vent all the bottled-up bias that I've been keeping away from my other work.

I'd use the excuse that the viewpoint is there to provoke comment from the readers, but thankfully I don't need to. *Acorn User* readers are usually more than willing to write in without being provoked; take any of the last year's letters pages and you'll find as many letters leading the debate as there are replying to it.

Windows 95 seems to be a particular focus for debate at the moment. I'm sure that if you're used to Windows 3.1 then Windows 95 comes as a pleasant surprise – if it runs at all. There are certainly areas of the design of Windows 95 which RISC OS would do well to follow: long filenames, hot key window cycling and so on. But for anyone used to RISC OS, the sheer size of Windows 95 makes it very cumbersome to install and use.

In any case, Windows 95 will be obsolete in two years or so when the full-blown 32-bit Microsoft operating system appears on the scene. Anyone converting their software to take full advantage of Windows 95 might just as well wait for Windows 97 to arrive and standardise on that. In the meantime, Microsoft makes a heap of money selling an operating system with a two-year lifespan. And the operating system isn't even finished yet, with the promised Internet connectivity and outline fonts arriving in a 'supplement' at the end of this year. Good work, Bill Gates.

One thing Bill has done for the market is convinced people that if you hype a product enough, it will sell. They go on from this to suggest that if Acorn were to concentrate all its effort into marketing then Acorn would suddenly sell like hot cakes and all would be rosy in the Acorn world. This won't work – Acorn is no Microsoft, having neither the money, the resources nor the installed hardware base. Nonetheless, it produces leading-edge technology, and concentrating on this though its ART division can only be a good move for the market.

On the subject of PCs, I'm often asked whether *Acorn User* is about to start a column reviewing PC software. The answer to that is a very clear 'No'; such things are best left to the PC magazines, who can cover the software in much greater detail. The only PC-related articles in *Acorn User* will concern using a PC card or co-processor in an Acorn machine, and the problems encountered when doing so.

So, no PC page, but what of the rest of the magazine? There's nothing drastic planned, although a few new ideas will be introduced over the next few months. Our comparative review of Internet packages this month sets the trend – I always feel that it's so much more useful to have a large comparative review than a scattering of stand-alone ones. After all, that's the way you buy a product; you say 'I need a spreadsheet, I wonder which one's best?' not 'I want to buy *EasyCalc*, tell me about it.'

Oh, and I think we'll keep the name of The Moxon Interview the same. It's almost become a trademark.

David Matthewman

Dune II on CD

I've been taking a look at the enhanced version of *Dune II* that Eclipse are hoping to release at the forthcoming Acorn World exhibition, and to be honest it's been a little difficult to prise myself away from it. Originally released on eight floppy discs, it was missing one or two things such as the music and the introductory animation. Still an absorbing game, it's kept me at my computer for hours and has even managed to tear Tom Cooper away from *Darkwood* – no mean feat in itself.

What's the CD-ROM version got to offer? The most noticeable addition is the music, something I missed on the earlier release. It's possible to output the tunes in MIDI, but I envisage most people will be using the standard Acorn sound output. If you haven't already purchased a pair of so-called 'active' speakers that amplify the sound from the computer's headphone socket, I'd heartily suggest you look around for a set. Due to the way the music is replayed, it can be a little on the quiet side if you don't amplify it – besides, I wouldn't dream of forcing anything through the mono speakers gracing the current Acorn models. I think it's worth looking around for a magnetically shielded pair; anyone who's accidentally left a magnet near a monitor will know what I'm talking about – freaky colour schemes are the order of the day.

The pieces of music are automatically loaded while you're playing the game, and they're designed to augment the mood at the time. If you're busy wandering the sandy plains in search of spice, a gentle tune accompanies your movements. As soon as the local residents start making their presence felt, the tempo quickens and you're listening to the drumbeats of a military tattoo. The CD-ROM also contains the music tracks in their original form before they were converted to Acorn format. They're stored as individual samples, which means that about 80Mb of the disc contains raw sound data. The quality of the music is incredible – slightly better than the in-game versions – and there's a Desktop program supplied so you can spool it off the CD and listen to it to your heart's content.

In terms of playing options, the available screen modes have been altered in order to cater for all tastes, including a new Risc PC CGA screen mode for maximum speed. There have been several tweaks to improve the presentation, but all in all there haven't been many obvious changes to the gameplay. If you've completed the floppy-based version, this one will hold no surprises for you.

To sum up, then – if you own the earlier version and you've mastered all that it can throw at you, there's not much to be gained by upgrading unless you particularly like the music or you need to liberate some space on your hard drive. If, however, you're still battling with the forces on Arrakis, the CD-ROM upgrade will add a new dimension to your adventures. Finally, if you haven't played Dune II yet, take a look as soon as you can. Although its unprepossessing graphics didn't win me over initially, after ten minutes of gameplay I was hooked. There's an older demo version on the *Acorn User* CD-ROM in case you want to try it out, and you can contact Eclipse on (01243) 531194 or by e-mail at eclipse@oasis.co.uk. They're also hoping to release *Global Effect* very soon, but I've not been able to catch sight of this one yet. When I do, you'll be the first to know.

Now, what I'd like to see in the future is a multi-player version of such a strategy game. Battling against the computer is all very well, but you can soon develop a set of strategies which will allow you to overcome any opposition in the end. Imagine *Dune II* in which you were playing against a colleague, or a version of *Sim City 2000* where you were competing for land space with another mayor. If anyone out there is designing something similar for the Acorn, please let me know and I'll feature it in a future column.

On a different note – I'm



Dune 2 is now available on CD-ROM, and very nice it is too.

sorry, I couldn't resist it – I'd be interested to hear from people who have upgraded to 16-bit sound, either through purchasing the optional sound card or those lucky enough to possess a new Risc PC or A7000. How well do they work, are there any incompatibility problems, and can you tell the difference?

Net one, purl one

By the time you read this, the *Acorn User* Internet Offer will be well underway, and I reckon it's time for the Game Show to branch out a little. There are plenty of ways to spend your time on the Net; some productive, others not so. I've already mentioned Gareth Moore's electronic repository of games information, and there are plenty of other resources knocking about which can provide you with anything from detailed tutorials on three-dimensional graphics to lists of the secret levels in *Doom*. The Net has its fair share of drawbacks – the Information Superhighway comes complete with roadworks – and if you're new to the game, it's easy to be demoralised by the number of errors you encounter. However, with time and patience, you can access all manner of informative material. In order to make things a little easier to find, I'd like to collect the addresses of any particularly interesting sites, so if there's one that you think other readers might benefit from, please drop me a line with the URL.



Next month – games pages on the Web.

If you've already spent some time on the Net, the chances are that you'll have heard about the various Multi-User Dungeons and talkers that are liberally scattered among servers all over the world. They vary wildly in theme, from gritty fantasy to surreal humour, so there's something to suit everyone. The vast majority of these MUDs begin their lives as a chunk of generic code that someone's downloaded, with new locations and code tacked on here and there – don't be surprised when a lot of them have the same sort of feel.

However, there's the odd original floating around, and I've spent quite a bit of time on one based in Oxford. Going by the seemingly innocuous name of *Island*, it's home to a diverse collection of characters from all over the world who log on to tackle mind-bending quests, battle horrific monsters from King Kong to Bill Gates, and perhaps most importantly, have a good chat. The overriding theme of the game is humour, and you'll find a collection of styles spread over its numerous locations. If you fancy taking a look at what the management like to call 'the world's most literate MUD', telnet teaching4.physics.ox.ac.uk 2092 and tell them that LINK sent you. One word of caution – these MUDs can soak up a disproportionate amount of time, so if you're dialling via a modem, make sure you keep an eye on the clock.

What do you think about the Internet? It's something of a contentious issue – theoretically, the Net opens up worldwide communications to anyone with a modem, but in practice it's going to get increasingly congested as time goes on. Is it going to hold the future of interactive gaming, or will we be staring at 'Connection failed' messages in years to come? Will you pay the connection charges and access costs to play on-line games, or will you stick with the more conventional games of the present? Let me know what you think.

And finally

Next month, I hope to bring you progress on what looks to be the first realistic pinball simulator for the Acorn – written by Mattijs van Delden and the Quantum team, and introduced on Gareth Moore's World Wide Web gaming page. It's only the first in a series of games that Quantum hopes to release, and I'll be interested to see whether their products show the sort of polish they made such a point of in their recent demo.

As always, I'd be interested to hear from programmers and players alike, so if you'd like to drop me a line, you can write to me at *Game Show, Acorn User, IDG Media, Media House, Adlington Park, Macclesfield SK10 4NP* or by e-mail at *HAL@acornusr.demon.co.uk*. I look forward to hearing from you.

Steve Mumford

Free Darkwood demo

Tom Cooper's much-awaited masterpiece *Darkwood* will be making its debut at the Acorn World show in October, costing £24.99 from Eclipse.

Regular readers of this column will know that the plot concerns a wizard who has to solve a number of fiendish puzzles as he wanders through the land, meeting other characters on the way. Imbued throughout with Tom's quirky humour and general hatred of small cute animals, *Darkwood* promises to be one of the hits of 1995, and to go down in the hall of fame of Acorn-originated games.

Acorn User readers can get a free demo copy of the game by phoning Eclipse on (01243) 531194. As visitors to our web site will know, Tom has had a page previewing *Darkwood* for some time; the page should now contain a link to a downloadable copy of the demo.

Happy wizarding...



It's not dark and there's no trees in it.

Introducing the new division of the award winning educational software specialists with some VERY SPECIAL opening offers.

SHERSTON HOME

THE CRYSTAL MAZE



TV's No1 Adventure Game at a VERY SPECIAL price!

Based on the top rated TV adventure game, The Crystal Maze is full of thought provoking puzzles and problems that encourage logical thinking, problem solving and co-operation. Produced in conjunction with Chatsworth Television, the computer version retains all the excitement and visual appeal of the TV program. Can you solve the mysterious puzzles and problems in each of the four zones and face the final challenge in the Crystal Dome?

Age: 7 years to Adult

RRP £39.95

Special SHERSTON HOME offer

only **£19.95**

Talking Activities



Duck loses his Quack & Jim gets the Sneezes

TWO ACTIVITIES for the price of ONE!

Featuring the actual voices of Rosie and Jim together with wonderful animations and sound effects, these are sure to delight all Rosie and Jim fans. When 'Duck loses his Quack', Rosie and Jim get the giggles. But where is Duck's quack? Has the horse got it? Maybe the sheep? In 'Jim gets the Sneezes' the flowers on the table make Jim sneeze. But which ones make him sneeze? Is it the red flower? Is it the flower with four petals?

Age 3-6 years

RRP £11.75 each

Special SHERSTON HOME offer

TWO activities for the price of ONE **£11.75**

IMPORTANT: When ordering, you must mention SHERSTON HOME to receive these special offer prices. This offer ends 31st of January 1996.

SHERSTON HOME

SHERSTON HOME OFFERS,
Sherston Software Limited,
Angel House, Sherston, Malmesbury,
Wiltshire, SN16 0LH.
Tel: 01666 840433 Fax: 01666 840048
Email: sales@sherston.co.uk

Please make cheques payable to:
Sherston Software Ltd.
Access and Visa welcome.
All prices include VAT and carriage within the UK.

RED HOT GAMES!

ALL THE HEAT YOU CAN HANDLE!

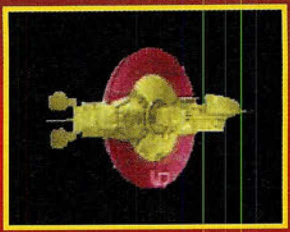
AXIS



Seek and destroy, the original arcade classic from Powerstation

£24.99
Minimum 1MB RAM/RISC OS 2

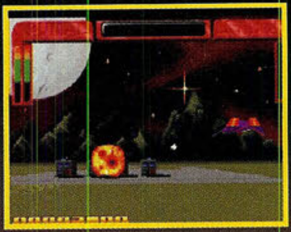
COMMAND SHIP



Due to dimishing supplies of natural resources the Stellar Mining Corporation (SMC) despatch the deep space mining ship Andromeda. Time is short and new mining fields must be established and old ones brought back on-line. A superb mix of arcade action, logic puzzles, and top quality graphics, make one the most original games on the Acorn platform

£24.99
Minimum 2MB RAM/RISC OS 2

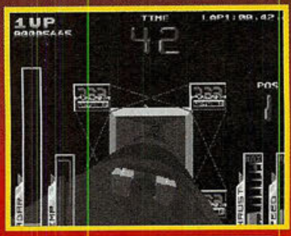
THE COBALT SEED



Shoot to kill in stunning 3D , smooth and slick arcade action

£24.99
Minimum 1MB RAM/RISC OS 2

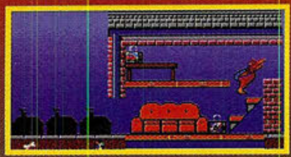
FORMULA TWO THOUSAND



Formula racing of the future, have you got what it takes to complete the season and become the champion?

£24.99
Minimum 1MB RAM/RISC OS 2

CYBER APE





An ape is taken from jungle and sent to a research lab for experimentation.These experiments endow him with human-like abilities like walking upright.He also gains greater intelligence, which may or may not be a human-likeability! He escapes and is determined to make his way home.

£19.99
Minimum 2MB RAM/RISC OS 2

JOYPADS

(for all Acorn 32bit computers Prices include Software.)

SPEEDPAD Autofire Pad
Single - £14.99
Dual - £24.99

PROPAD Full independant autofire
Single - £19.99
Dual - £34.99

LOGI-PAD Fully micro-switched
Single - £24.99
Dual - £44.99

PHANTOM Large arcade style, with joystick control
Single - £29.99
Dual - £54.99

Printer Switch
Quality, compact space saving, 2 way data switch - £17.99

All Prices Fully Inclusive of P&P

T.B.A SOFTWARE

TBA Software Mead Farm North Road Timsbury Bath BA3 1JH
Telephone: (01761) 470003

HIGH RISC RACING

Supplier: Modus Software
Tel: (01236) 722202
E-mail: modus@digibank.demon.co.uk
Price: £25

Modus Software is an unusual company in that even before it had released its first game, it was a finalist in the 1995 *LiveWire* awards, based on the team's business acumen, technical expertise and original ideas. The company's aim was to improve the quality of games on the Archimedes, and *High Risc Racing* is the first product to emerge.

First impressions count for a lot, and *HRR* scores highly here. The presentation is slick, with the opening screens zooming in and out in a flurry of bitmap graphics. This is carried over to the main menu screen which presents you with a choice of six options; click on any one and the button expands to fill the screen, dissolving into whatever option you have chosen. All the while a moody soundtrack is being played, courtesy of the ubiquitous *QTM* tracker player.

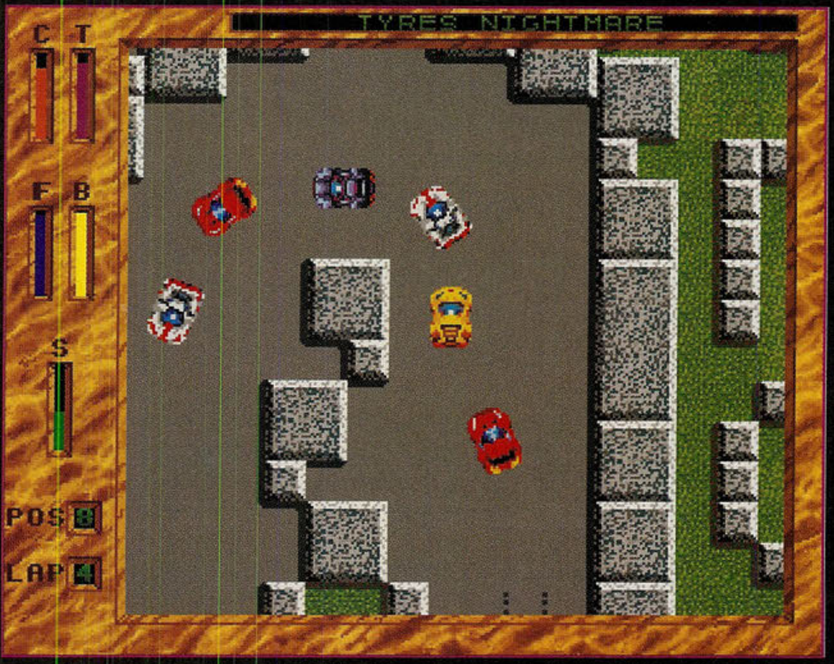
This sort of attention to the presentation of a game is all too rare on the Acorn platform – though it is standard elsewhere. Having said this, too many well-presented games turn out to be 'all style and no substance'; is *HRR* one of these?

No, not really. As you can see from the screenshot, the graphics for the game are at first sight a little disappointing, being basic overhead representations of the track and competing cars. However, the scenery scrolls past at an impressive rate, and you soon forget the blocky representation of the cars because all your wits are occupied keeping the thing on the road.

HRR has a structure similar to *Elite*, in that you start off in an underpowered shoebox with no weapons and gradually, as you get more skilful and start winning races, you build up enough money to improve your car's specifications. In fact, you can even trade it in for a sleeker model, right up to the top-of-the range hornet.

One feature of *HRR* which you don't exactly get at *le Mans* is the ability to blow your opposition off the track with missiles. This is a bit of a novelty for racing games – you could knock over the odd policeman in *E-type* but *Revs* was never like this – and it certainly adds to the excitement.

The gameplay is very tricky to get the hang of at first. The car seems very hard to control, and you end up making multiple contact with the walls and with other cars as they lap you again and again. You start at the back of the pack too, so even if you keep pace with the other cars you do still have to fight your way past them. Anything worse than third leaves you unranked with no prize money and no way of progressing through the levels.



You're in eighth position and battling hard to get to third, but there are five computer-controlled cars and a dangerous corner ahead of you. Time for a turbo boost? Burn that rubber – this track isn't called 'tyres nightmare' for nothing.

If you're the sort to give up easily then don't buy this game. If you like a challenge; this could just be the game for you. Once you have got the hang of steering the car, and you will with a little practice, you have a long, gruelling task ahead of you.

The levels are varied and offer some inventive track layouts, although none are maintained to Formula One standards as they all have pot-holes and the occasional oil slick. You don't actually need to keep your car on the road all the time, but if you do nip across a bit of waste ground for a short cut, you'll pay the price in expensive repairs.

Repairs are very important. Each race will have taken its toll on your car, and if you're the type of driver who likes to screech round corners in a 'controlled' skid, you'll need to spend a lot repairing your tyres afterwards.

This aspect of the game calls for a lot of skill and tactics. You want extra power, but it'll cost you in tyre wear and fuel and you'll need the skill to control the car, or the effort will be wasted. You're on a budget, but the faster and more powerful your car, the more chance you have of winning the big bucks in races. It's this combination of tactical planning and arcade-style racing action that should make *High Risc Racing* a winner.

If they continue to write games like this, the Modus Software team should go a long way.

Dave Ward





Supplier: The Fourth Dimension
Tel: 0114-276 9950
Price: £24.95 + VAT

'The story so far...

'After being kicked off Earth, Spobbleoid was sucked into a passing dimensional rift. This was a tad unfortunate, but such is life...'

The latest release from The Fourth Dimension is the sequel to a game published last year by Cybernation; *Spobbleoid*. It's written by the same team, and those of you who bought the original really only need to know that this has another 36 levels, improved sound and in-game music and a game designer.

Those of you who missed the original will need a bit more explanation. *Spobbleoid* is a cross between *Pac Man* and *Repton*, but more psychedelic. Spobbleoid herself is a small mechanical orange who scampers about the screen collecting fruit and power crystals and avoiding monsters.

Just to complicate matters, the screen is littered with blocks which must be slid out of the way to get at some of the goodies. It's not that simple though (is it ever?) because if you push the wrong block at the wrong time you'll end up being unable to get at all the goodies and won't finish the level.

Furthermore, some of the blocks have time delays which locks them in place if you are too slow. Others won't move until you have found the correct key to unlock them, or only slide off in one direction.

This, then, is a game of cunning. There are no spaceships to shoot, no Nazis to gun down, and even when you do squash the monsters, they vanish in a gore-free puff of pixels. There are plenty of puzzles to solve, and I can't tell you how refreshing it is to find a game that hasn't forgotten that games should, at heart, be both brain-taxing and fun.



The game is divided into 12 areas, each with six levels to solve. The first six areas are from the original game; the second six are new. Between each level is a special bonus screen, where you have to solve one of a variety of puzzles against the clock for extra points.

The puzzles start out easy enough, breaking you in gently. They get harder very soon after that, and if there's one criticism I would level at the game, it's that one or two of the early time-lock levels don't leave you nearly enough time to complete them unless you are already an expert.

Owners of the original *Spobbleoid* may be wondering if it is worth buying the new game if they already have half the levels. I would say that it certainly was; not only has the game itself been improved but *Spobbleoid Fantasy* includes a game designer with which you can create your own levels or add extra challenges to existing levels.

To use the designer, you first make a copy of the second *Spobbleoid* disc and then edit the copy. You can design completely new levels from scratch or alter the data on existing ones. What's more, the high score table and passwords are saved with the level data, so you can pass the discs round to your friends who also have *Spobbleoid Fantasy* and have league tables for each set of levels you design.

If you need any more convincing that *Spobbleoid Fantasy* is an genuine arcade puzzle game like which they don't make 'em any more, try out the demo on this month's cover disc. You won't be disappointed.

Dave Ward

Cover disc demo

Play the exclusive *Spobbleoid Fantasy* demo on the *Acorn User* cover disc this month.



Spobbleoid must move all the relevant blocks with clocks in before they time out and become fixed in place. She must also avoid the evil-looking orange pepperpot in the bottom right of the screen, unlock blocks using the key and collect all the purple crystals – all before the time bar at the bottom of the screen reaches zero.

For Home and Business finance...

Personal Accounts 3

Running your personal finances on a computer may seem like overkill, but until you try it you will never know the benefits.

Keeping track of direct debits and standing orders is at best very fiddly and at worse expensive when you consider the charges most banks levy if you become overdrawn.

Personal Accounts 3 takes the guesswork out of it. You will know exactly how much you have in each account and when it needs topping up. This however is only one of Personal Accounts many features. Telephone for a free brochure and demonstration disc to see what it can do for you.

Personal Accounts has received top reviews in all the Acorn magazines.

Prophet 2

1st
Acorn User Best Business Software 1995

If a computer program could replace a manual system and not only give you more information but also save you time, it would be a worthwhile investment.

If it could also automatically enter standing orders on time, send overdue statements to your customers, produce VAT returns, calculate Profit&Loss and balance sheet figures and cost less than £200 it would be an absolute bargain.

Prophet does this and a lot more too. It is no wonder that readers of Acorn User have just voted it **best business software 1995**.

In May this year we released version 2. We have had a record upgrade response from users' of version 1 and top reviews from all the best selling Acorn magazines (see the July '95 editions of Acorn User, Archimedes World and Risc User).

Unlike other accounting software we provide free help, free upgrades between major versions and no annual service charges. Please telephone/fax or write for a brochure and demonstration disc.

Shares 5

Version 5 of our popular share portfolio program will make it's debut at the Acorn World show in October. There are a whole host of new features including log as well as linear graphs, point & figure graphs and probably the most important feature - capital gains tax calculations.

Version 4 is still available and the basic upgrade to version 5 will be no more than the difference in price. Please send for the brochure and demonstration disc. Existing users will be notified direct.

...there is only one choice

See us at Acorn World '95 stand 79

Apricote Studios

2 Purls Bridge Farm, Manea, Cambs, PE15 0ND

Registered Developer

Tel/Fax: 01354 680432

VISA Access

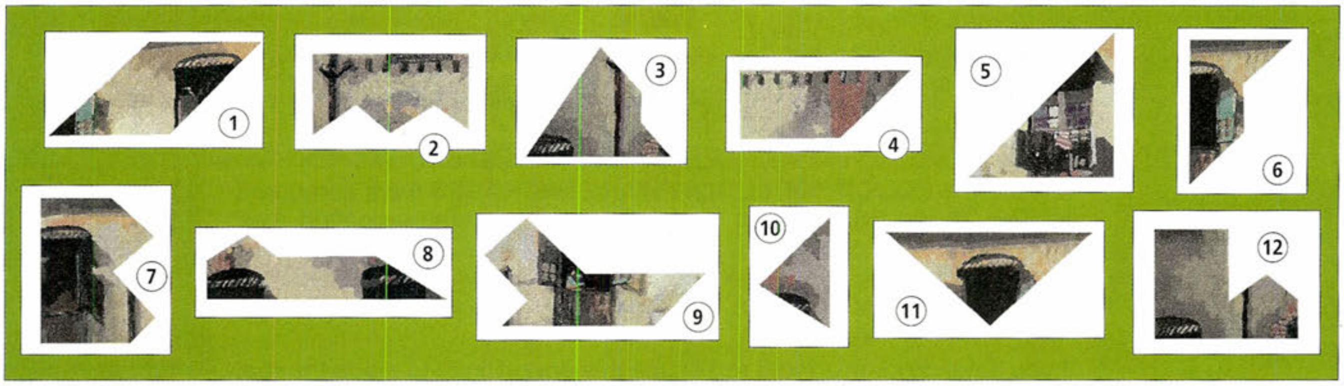
Picture puzzler

Win a copy of The Big Picture from Longman Logotron in our competition.

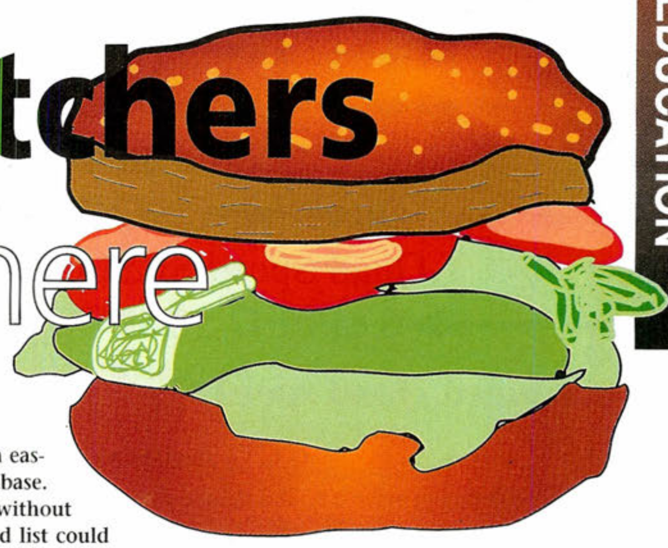
Longman Logotron has just released a new 24-bit painting package called *The Big Picture*, a demo of which is on one of our cover discs this month. Normally, *The Big Picture* costs £69 + VAT, but *Acorn User* has five copies to give away to the first five correct entries to our competition drawn out of the hat.

Ten of the pieces on this page fit together to make up a complete picture – the painting on the cover disc, which was created using *The Big Picture*. Two of them are extra. All you have to do is identify the extra pieces and send us a postcard saying which ones they are; remember to give your name and address on the postcard. All entries must be received at the *Acorn User* offices by the end of December, when we will draw the five lucky winners from out of a hat.

Send your entries to: *Acorn User* Picture Puzzler, IDG Media, Media House, Adlington Park, Macclesfield SK10 4NP. The editor's decision is final, and no correspondence will be entered into.



Weight watchers start here



Geoff Preston weighs up the options for computerised diet managing.

It seems that hardly a week goes by without someone, somewhere telling us our diet is unhealthy. Keeping note ofdaily intake with the aid of a book of nutritional data and a calculator can be tiresome to say the very least. A computer with the right software can make the task a great deal more pleasurable. But what are the options?

Diet Manager

One of the programs I use in the lower school, and available on the network for general use, is *Diet Manager* from Mewsoft. This is a dedicated database containing nutritional information on over 300 foods and ingredients. I use this program with Year 9 Home Economics students who can quickly plan a meal by selecting various foods from a window called the Larder.

All foods are divided into categories meats, dairy produce, vegetables etc. The category icon is dragged into the Food Selection window and the actual food is then chosen from the list displayed.

Included in the food data is the value of a typical serving, which can be adjusted. Unfortunately, the units vary between different foods, so it's not always easy to compare servings.

A graph can display the nutrients for either a single food or for a selection of foods against the recommended daily intake. The nutrients included are calories, protein, carbohydrate, fat and fibre, but there is no provision for vitamins or minerals.

Diet Manager will save meals in either native format or as a CSV file which could then be loaded into a spreadsheet or graphing program. Items can easily be added to the food database. This is a mixed blessing as – without careful supervision – the food list could soon contain large quantities of inaccurate and misleading data making it about as useful as a spelling checker filled with misspelt words.

The solution here is to place the program on a read-only area of the network. If any foods need to be added, the teacher responsible for the network should do it, after verifying the accuracy of the data, of course.

An enhanced version (*Diet Manager II*), which among other improvements generates graphs, is available at the higher price of £55.

Diet Guide

From Hampshire Microtechnology Centre comes *Diet Guide* with which I am not so familiar, but initial impressions are very favourable.

The manual begins by claiming the program is aimed at Key Stage 2 and below. Certainly, the presentation is aimed at a younger audience than that of *Diet Manager*, but I can't think of a good reason why it should not be used right up to Key Stage 4, and even beyond. Certainly, the material content is more than adequate and it has some very interesting additional features which many adolescents would be wise to use.

The user selects foods by clicking on the text icon on the button bar which opens a menu showing all the categories of foods held in the database. The food is chosen from a sub-menu containing all the foods in that category. Once the food is chosen, the user is asked to choose the quantity.

This, I feel, is the weakest area of the program because in most cases the choice of serving is small, medium or large, rather than accurate weights.

Clicking on the 'Professor' icon gives some textual comments on the food selection and a graph of the breakdown of the food. An analysis of each item can be also be displayed.

Diet Guide contains a much greater database of foods than *Diet Manager*, each one containing more data about each food, but there is no way of adding to the existing food list.



DietGuide has an extensive food list to choose from.

Diet

Don't dismiss magazine discs as containing only trivial programs. The magazine disc associated with volume 8, issue 3 of *Risc User* – published by Beebug ((01727) 840303) – carried a program called *Diet*. While not as user friendly as either *Diet Manager* or *Diet Guide*, it is nevertheless a sound program with many useful features, which for £4.75 is worth buying. AU

Product details

Product: Diet Manager
Supplier: Mewsoft
Tel: 0171-267 2642
Price: £35 + VAT

Pros: Easy selection • Configurable for age group

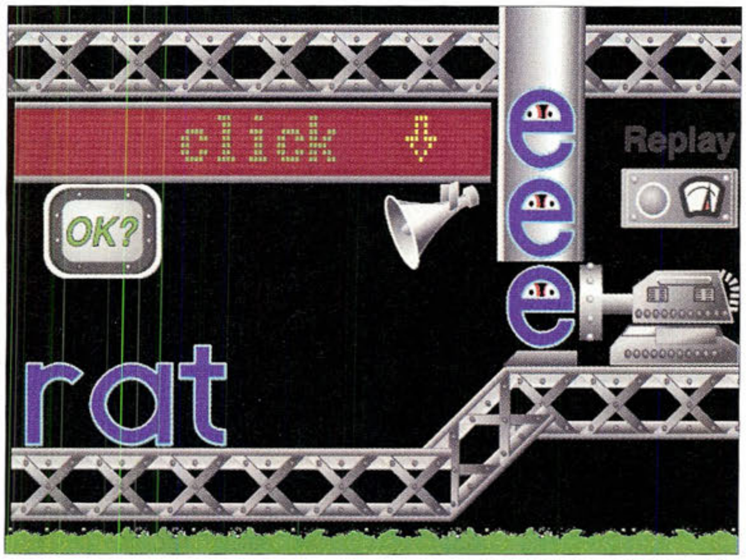
Cons: Limited food list • No vitamins or minerals

Product: Diet Guide
Supplier: Hampshire Microtechnology Centre
Tel: (01705) 378266
Price: £45.95 + VAT (Secondary site licence £90)

Pros: Easy to learn • Suitable for wide age range

Cons: No CSV output • Food quantities a little vague

Under the spell



The magic-e machine at work.

Colin Rouse looks at a selection of software from Xavier to help dyslexic pupils.

Often, in the classroom, we are faced with the problem of meeting the needs of children who have specific learning difficulties. There are many different strategies that can be employed very successfully. Information Technology can help meet the needs of these pupils in a variety of ways. One software house, Xavier Educational Software, has produced a selection of software specifically aimed at these children, especially those with dyslexia.

Xavier is based at the University of Bangor, Department of Psychology. Within the department is a dyslexia unit, where research has been undertaken for 30 years, gaining international recognition. It was here that a small-steps, phonic-based teaching system for the dyslexic pupil was developed, and about seven years ago it was decided that a series of computer programs could enhance the work of the unit and provide stimulation for the pupil.

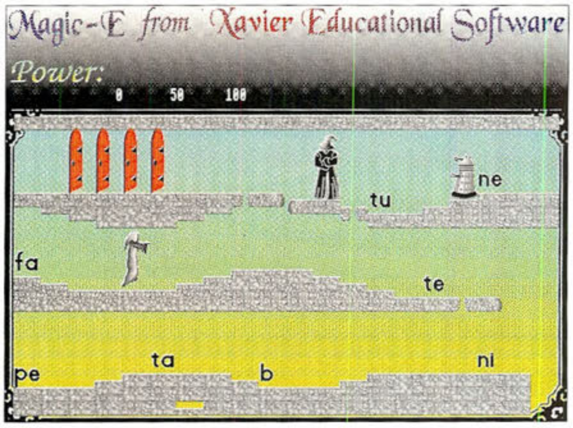
The software was originally written for the BBC range of computers but was extended with the introduction of the Archimedes and sampled speech. This produced some excellent software, some of which was short-listed for a Joseph Rowntree Foundation award last year. Having found that many dyslexic children benefit from frequent, short-term repetition of exercises, the programs tend to be of the 'structured learning' variety. I think there is a need for all types of supportive program and therefore suggest that these software packages will have a real impact in the education of dyslexic pupils.

Software selection

Although Xavier produces a variety of software, I have chosen three programs I feel can support the needs of dyslexic pupils and those with specific learning difficulties in the primary classroom.

All the programs reviewed here are supported by research findings that show the relevance of this approach for pupils who struggle with literacy learning.

The programs generally correspond to the early levels of the revised National Curriculum for English and complement in particular those elements that deal with the acquisition of essential low-level literacy skills.



Can you help the wizard?

Magic-e

This program is designed to help pupils recognise whether the vowel sound is long or short. A second major function of the silent *e* – to soften the sounds of *c* and *g* – is also introduced.

The teacher disc has a limited vocabulary to demonstrate the various spelling rules associated with the 'magic e', while the practice disc is used to test the pupils' knowledge over a larger selection of words. This is then extended using the chooser disc whereby the teacher – with access to a sound recorder – can choose the words the pupil uses.

There are two main activities: Firstly, the magic-e machine which pumps the 'e' to the end of the word and then says the word. Both sound and animation can be replayed, if necessary, to reinforce the concept.

Secondly, there is the practice section. This features a wizard who is moved around the screen collecting the letters of a pre-defined word in the correct order.

The screen is in the form of a maze with a selection of closed doors. To unlock these doors the pupil has to listen to the spoken word and guide the wizard to the first part of the word. When the doors have all been unlocked and the word collected, the next screen is displayed.

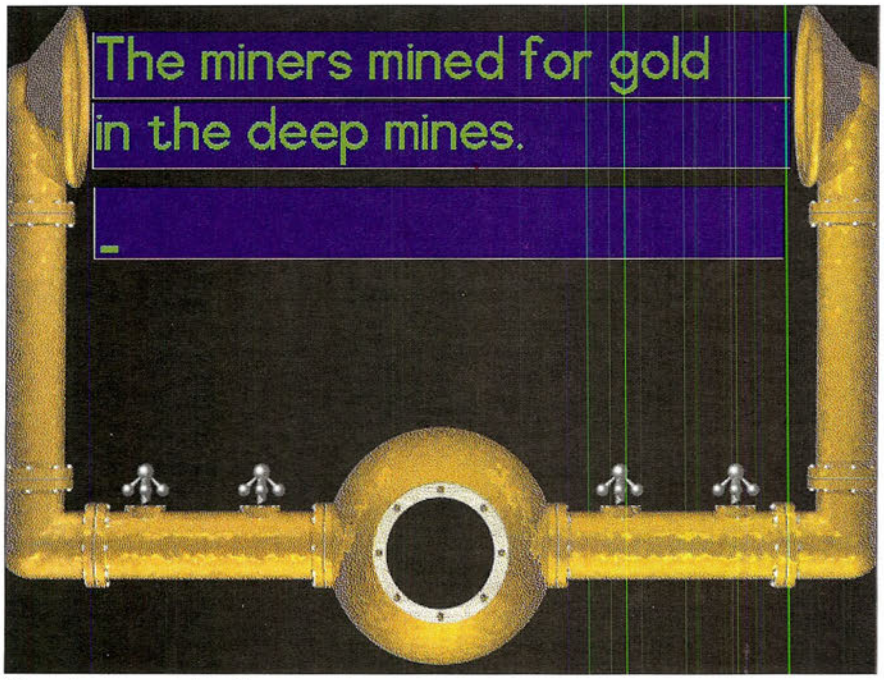
Teachers can choose from a selection of words or add their own; if they wish to create their own word lists, and have access to a sound recorder.

Sentence Pumper 2

It is generally recognised that the first step in learning spellings is to study and remember separate words, in groups or by spelling patterns. It is useful for this to be followed by dictation of the same words in carefully composed sentences. This gives pupils the opportunity to practise the learned vocabulary in a structured context along with revision of the work.

Sentence Pumper 2 encourages careful listening and accurate memorisation and repetition of sentences which may be gradually extended in length, and it can also be used for structured reading.

The screen takes the form of a machine with a line of text at the top. The pupil then reads the text and copies it, using the keyboard, onto the line underneath. As each word is correctly entered, it is spoken



The sentence pumper in action.

clearly and the pupil moves on to the next one.

When the sentence is completed, a new one is 'pumped' into place. New sentences can be added to the extensive list either by creating an Edit file which will then use synthesised speech or by using a sound sampler to create your own sounds.

Soapbox

This final choice aims to help learning by emphasising the relationship between the spelling pattern and the vowel sound. Each word is pronounced, the consonant pattern is highlighted, and contrasts made between words with long and short vowel sounds.

The program has two modes. In tutor mode, the pupil is helped to learn the spelling by studying the sequence of letters visually, then listening to the word and the sequence of letter names. In test mode the program dictates words for the pupil to type in. There is an optional game at the end.

The first stage screen has a word at its centre and is surrounded by four outline shapes, only one of which fits the word. If the correct outline is placed over the word, the computer will pronounce the word and can also spell it.

The second stage involves the pupil spelling back a word the computer has chosen. The pupil may hear the word as often as needed by using the megaphone option.

Once these two stages have been completed there is an optional map game which can be used to test a pupil's understanding in a fun way.

There is also the very useful option to print a list of words set and the attempts made by the pupil together with the time taken to do them.

In the classroom

Current research suggests that dyslexic children find it difficult to transfer information between the short and long-term memory, and it has been found that frequent short period repetition of exercises is a very successful approach.

Bearing this in mind, I decided to make computer time available on a daily basis for such pupils. My aim was to give them short bursts to help try to make the transition from short to long-term memory retention. This did take the computer away from other pupils, but the time needed to complete the small tasks was minimal so that it was not actually an issue.

I targetted not only my dyslexic child but also others who – for one reason or another – were failing to acquire the necessary skills for successful spelling.

All the children found the various exercises stimulating and looked forward to them. They were quickly able to load and run the exercises independently but I was able to monitor their work through the program's record-keeping facilities.

They were able to succeed using the computer, which in turn provided motivation for the next attempt. There was a definite improvement in spelling skills using this 'little and often' approach.

In conclusion

Almost all those with literacy problems need large amounts of structured learning. The computer is able to provide this better than any other method. Through the use of appropriate software, dyslexics begin to understand the sound symbol correspondence and letter strings.

The software covered here, as well as other Xavier programs allow pupils the opportunity to do just that. Based on well-researched and proven techniques and approved by the British Dyslexia Association, these programs are a must for any school or parent faced with these problems. AU

Product details

Supplier: Xavier Educational Software
Tel: (01248) 382616
Fax: (01248) 382599
E-mail: pss005@clss1.bangor.ac.uk
Price: Magic-e £32.50, Sentence Pumper 2 £32.50, Soapbox £37.50

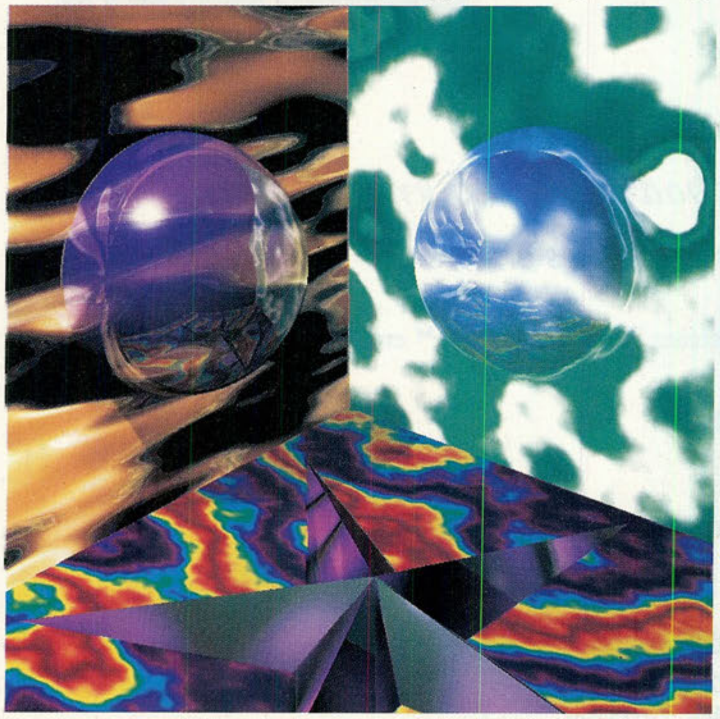
Pros: The software does what it claims • Interesting and easy to use • Inexpensive

Cons: A sound recorder is needed if you want to add your own words and sounds.



On the soapbox spell trail.

Merlin The Magic of Raytracing



- easy to use (for young and old)
- for beginners and experienced users
- 3D editor and raytracer
- powerfull import facilities
- user friendly material editor

Price: only £100 plus VAT plus £6 pp
dealer enquiries welcome
payment via credit card or cheque
minimum system requirements:
RISC OS 3.1 / 2 MB RAM / hard disc

EVOLUTION COMPUTER / Stefan Fröhling / An den Klippen 23
57462 Olpe / Germany / Tel. & Fax.: (49) 2761 / 3062

SoftCentre

01924 272511

25, TOWNGATE,
OSSETT,
WAKEFIELD,
WF5 9BL
01924 272511

900 Fonts now available with around another 1000 in the pipeline !!

Many new Clipart files now ready

*** *CD's now available* ***

CD1	Around 3000 Adobe Type 1 Fonts (1)	19.99
CD2	Fonts & many 100s of pieces of clipart (1 & 2)	9:99
CD3	1000s of pieces of clipart (2)	9:99
CD4	1000s pieces of Professional quality clipart (2)	19:99
CD5	Many 100s pieces of clipart - great value (2)	6:99
CD6	Many 100s of photos many subjects - great value (2)	6:99
CD7	Clipart, Photos & Fonts (1 & 2)	9:99
CD8	Clipart, Photos & Fonts (1 & 2)	9:99
CD9	1000s of pieces of clipart + MANY PC utilities & editors (2)	14:99
CD10	Many 100s of photos covering many subjects (2)	14:99
CD11	100 Classic cars from the National Motor Museum (2 & P)	12:99
CD12	100 Flowering Plants, Familiar & Exotic (2 & P)	12:99
CD13	100 Landscapes, Worldwide, many famous locations (2 & P)	12:99
CD14	Collection of 265 most unusual fonts (1)	12:99

Utilities needed with these CD's

1 = !T1 to Font 2 = !ChangeFSI or !Translator P = Photo CD Compatible

Floppy Drive Cleaning Kits
1 - 1:99 5 - 8:99 10 - 15:99

Clipart & Photo Floppies are only 1:50 DD & 2:00 HD
P & P only 1:50 per order

CD-ROM

Eesox Parallel Port CD-ROM drives

- **The Instant Eesox Drive, £118.30 (£139 inc VAT !)**
- **Double speed, £169.36 (£199 inc VAT)**
- **Quad speed, £254.47 (299 inc VAT)**

Eesox SCSI CD-ROM drives

- **Double speed external £169.36**
- **Quad speed below £146 ! External available**
- **Six speed below £ 300. External available**

Eesox IDE CD-ROM drives

- **Quad speed below £146 !**
- **Six speed below £ 200.**

Eesox CD-ROM Enhancement Software

'CDFast' speed up utility £25 (£20 with drive)
'NetCDFast' speed up utility £130 (£99 with tower)

Eesox CD-ROM TOWERS

Drives	Single Speed	Quad Speed	Six Speed
2	£ 249	£ 379	£ P.O.A
4	£ 299	£ 679	£ P.O.A
6	£ 349	£ 979	£ P.O.A

MAKE YOUR OWN audio CD or CD-ROM

Audio CD £40, CD-ROM £60

Audio Products



Eesox Audio Mixer for RISC PC £35
16 bit sound card for RISC PC £59.95
12W speakers £25 (£20 with a drive)
25W speakers £35 (£30 with a drive)
80W speakers £49 (£44 with a drive)

Storage Devices



IDE Hard Discs

270MB £99, 540MB £139

SCSI Hard Discs

540MB £139, 1GB £235, 2GB £575
4GB £850, 9GB £1750

FastDisc Caching For Floppy And Hard Discs

Speeds up copying and deleting, £35

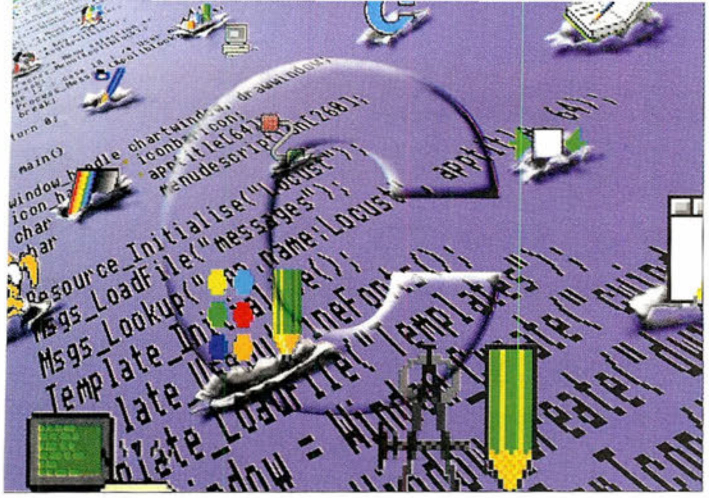
Graphics Tablets



ArtPad	£ 169
A5 size	£ 299
A4 size	£ 549
A3 size	£ 799
A2 size	£ 1599

NEW tablet software & ArtWorks Pressure Tool ALL INCLUDED !

Eesox Tel/fax: (01954) 212263
Suite 8c, Newton House, 147 St. Neots Rd
Hardwick, Cambs CB3 7QJ
email: eesox@cityscape.co.uk
www, http://www.gold.net/users/ej74/
All prices exclude VAT and postage



JACK KREINDLER

C for yourself

Steve Mumford investigates performing SWI calls from within C.

Welcome to the start of a new phase in *Acorn User's* monthly C tutorial – now we've covered the basics of programming an application in C, it's time to add the various mechanisms needed to allow the code to multitask in Acorn's desktop. However, it's not a particularly simple task and last month, I briefly mentioned the various libraries supplied with the compilers on the market. These aim to make the programmer's life a little easier by supplying ready-made C functions to automate the processes necessary to maintain a WIMP application.

Due to the problems associated with picking out a single library for the tutorial and disappointing those who don't have it, I've decided to take a lower level approach and attempt to build up our own library, using Acorn's SWI calls to control the WIMP directly. In this way, I hope to be able to introduce you to the methods of building your own libraries, as well as programming the WIMP. Since SWI calls are available in other languages available for the Acorn, the topics I'll cover in the forthcoming months should be applicable to a wide range of readers. From time to time, I'll compare the techniques I'm using with the libraries available so you'll be able to see the differences between them.

This month, I intend to cover the basics of calling an SWI from within a C program, giving you access to a wide range of utilities. Although we're not going to be building up a WIMP application just yet, we need to cover the SWI mechanisms now so that we can use the relevant WIMP calls in the future.

However, once you've mastered the techniques given below, you'll be able to inject your single-tasking applications with a bit more power. Of course, as soon as you start using SWI calls, your program is no longer portable – but that's a small price to pay.

In order to access these functions, we'll have to #include two new header files which we haven't made use of before. These are kernel.h and swis.h, and versions of these are supplied with both Beebug's *Easy C* and Acorn's C package.

The first of these provides the definitions of the functions we'll be using to call the SWIs, along with some important structure definitions which are used to hold the register information passed to and from the SWI.

The second file contains a long list of #define commands, allowing the programmer to use the textual variants of the SWI names and avoiding the need to remember eminently forgettable hexadecimal numbers.

I've included a basic demonstration of an SWI call on the cover disc, compiled by both Acorn and Beebug compilers – it simply performs an OS_Mouse system call and prints up the coordinates it returns whenever a mouse button is pressed. Before calling an SWI, there are a few data structures that you need to set up. Firstly, since you know how little error-trapping C does by itself, it's important to have a device to catch calls that produce errant results. To this end, a structure has been defined in kernel.h capable of holding an error number and message:

```
typedef struct {
int errnum;
char errmess[252];
} _kernel_oserror;
```

Once you've included kernel.h, you don't need to re-define this structure, and all you're required to do is declare a structure of your own with the line similar to the one shown below:

```
_kernel_oserror error;
```

The function itself takes three parameters – an integer giving the SWI number, and two structures each containing an array of ten integers. These hold the register values passed to and from the SWI command, and are set up prior to the call.

```
_kernel_swi_regs  in;
_kernel_swi_regs  out;
```

I've not needed to initialise in.r[] because OS_Mouse doesn't take any register input – it just passes values back in registers 0 to 4. We call the SWI as follows, typing in the full name instead of the number since this will be replaced by the appropriate swis.h definition on compilation.

```
error = *_kernel_swi(OS_Mouse, &in, &out);
```

On this occasion, I haven't implemented any error checking, but I've shown you the general form because it'll crop up a number of times in the future. The parameters are retrieved by standard structure manipulation, and they're printed using printf(). That's all there is to it – well, for now at least. See you next time. AU

Questions & Answers

ST506 drives, 3D menus, unplugged modules, upgrading A3000s and the serial ports on older machines.

Q I have an aged and second-hand but dependable A410/1 with a 4Mb memory, ARM3 and a 40Mb hard disc. As you would imagine, the hard disc is running out of space and I would like to upgrade to something much larger. It seems from the configuration file that I have an ST506 drive (in fact the drive itself is labelled 'Toshiba MK 134FA'). The user guide is not detailed enough to help me, so I wonder can you answer the following:

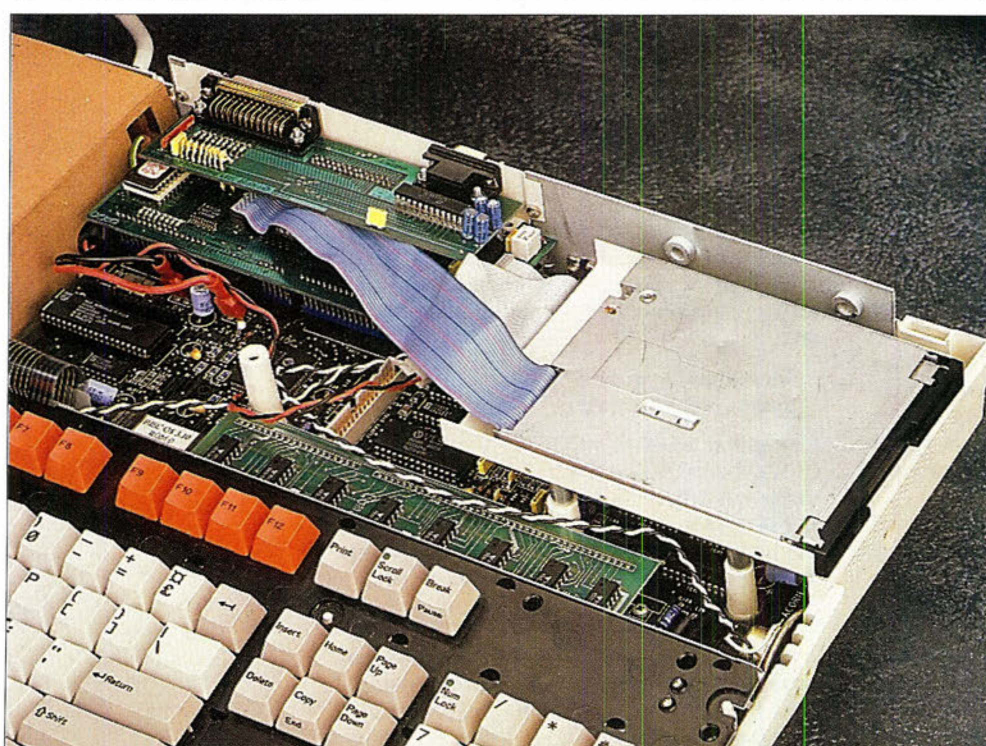
1. What is an ST506 as it seems it is neither an IDE nor a SCSI?
2. Is it upgradeable or would I have to discard it and replace it with an IDE/SCSI?
3. Could I run two together? The ST506 seems to have no interface card; could I still fit an extra IDE internally and where does the interface plug in? I have used only one of the backplane slots for a Scanlight 256.

Philip Hughes
Essex

A An ST506 is a standard of interface now made obsolete by IDE and SCSI, as it is slower and large hard drives are not available for it. It is *possible* to upgrade it, but not advisable – the best route would be to buy an IDE or SCSI interface and fit a hard drive to that.

The good news is that you will not need to scrap your old hard disc, which will quite happily co-exist with any new SCSI or IDE drive that you decide to fit – I have had all three working together in one machine myself. Either interface will plug into the backplane. If you are determined to go for an internal drive, a number of companies do a compact 'IDE drive in a card' solution, with a 2.5in IDE drive actually mounted on the podule itself.

If you want to fit a SCSI drive internally (or a larger IDE drive) then you will have to remove your existing hard drive. However, provided that you can manage to power both drives at the same time, you should be able to have them both running with the case of the machine open while you transfer data from your old machine to your new one.



Greyhound's upgrade kit for the A3000 gave you a high density floppy drive – is anyone still selling the upgrade now that Greyhound is no longer with us?

Q I was over the moon when I saw the *Director* program on your cover disc, as the screenshots accompanying Nick Craig-Wood's article all included menus with a three-dimensional effect. Upon using the program, I discovered that this didn't seem to be one of its features, much to my disappointment. Can you tell me what software allows you to have these menus, or if it is some part of *Director* that I've missed?

Martin Hendry
Poole

A You're quite right – *Director* doesn't do this. The only patch I am aware of that has this effect is a Risc PC-only one called *WimpPatch* by Ting Zwei Kuei, which also gives raised borders on dialogue boxes. This should not be confused with an earlier *WimpPatch* for pre-Risc PC machines which gave them outline fonts and textured backgrounds (but not 3D-style menus).

Both patches are available on Arcade and probably most PD libraries as well. Ting Zwei Kuei's patch is also on one of our PD subscription discs in our latest subs offer.

Q I have been having a problem with my A3000: recently strange error codes have appeared when I try to run *Armadeus* or *Phases 2.* The codes are:

```
SWI name not known
```

and:

```
SWI &406C0 not known
```

I was surprised by this because I thought that SWIs had something to do with sound which *Phases* doesn't have.

More importantly *Sound Lab II* gives an error code of:

```
SWI &406C3 not known
```

whenever an attempt is made to record anything via the microphone connected to the computer, but it will allow previously recorded samples to be played. Do you think that my problem is in the hardware or the software?

Morgan Brickley
Portmarnock

A **A SWI call is used by a program to interface with *any* area of the operating system – sound, graphics, the Desktop, files and so on – it's not sound-specific. The particular calls that you mention are concerned with the hourglass (the pointer shape which appears when the computer is busy).**

This is very odd, as these calls should always be available. What I suspect has happened is that the Hourglass module has become unplugged, making it invisible to the system. This would cause seemingly random errors as every time the software tried to create an hourglass it would throw up an error, though this won't always cause a crash.

The situation is thankfully reversible: try this:

- **Leave the Desktop by pressing F12 (function key 12)**
- **Type**

```
*UNPLUG
```

This will probably tell you that the Hourglass module is unplugged.

- **Type**

```
*RMInsert Hourglass
```

This will re-plug the module.

- **Type**

```
*RMReinit Hourglass
```

to re-initialise the module, making it available to the system.

- **Press Return to get back to the Desktop.**

If there are any more modules unplugged, you can re-plug them in in a similar way. Sometimes games unplug modules to get extra memory, and don't always give them back when you quit.

'SWI not found' errors are also caused when you try to run a RISC OS 3 program on RISC OS 2, but in this case the program usually warns you that it won't run on the older operating system first.

Q I currently own an A3000 with 2Mb RAM and RISC OS 2. I have a printer occupying the parallel port but no hard disc; I was wondering what the best options are to get one. The serial port is 'not fitted'.

Can I get a hard drive fitted to my expansion port? Would it be better to go internal? I am after a drive of around 200Mb here. What prices can I expect?

Also, can I fit RISC OS 3.11 after I have fitted the hard disc, or would it be better to have it fitted first. Does RISC OS 3.11 allow you to use high density discs?

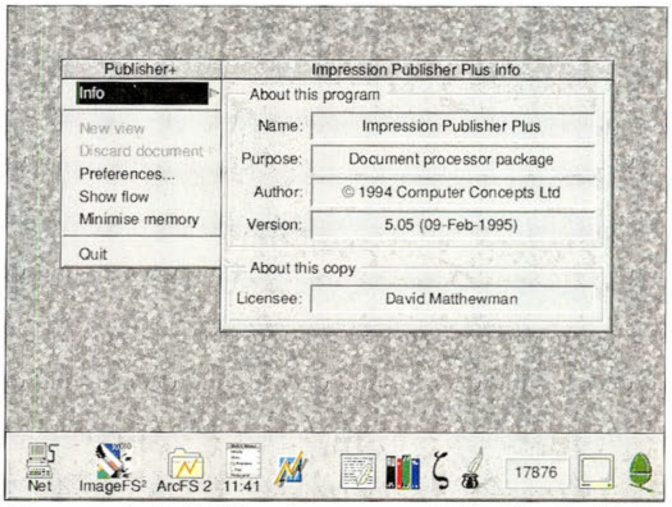
Gavin Innes
Peterhead

A **To take your points in turn:**

You could get a hard drive fitted to either the internal or the external expansion slot. For instance, Ian Copestake does an internal 240Mb IDE drive for £299. Other people to consult about this would be HCCS and Cumana, both of whom do a kit that allows your machine to be expanded further. VTi, Cumana, AlSystems and Morley will also do a SCSI interface either for the external slot or for the internal expansion slot. A SCSI interface would allow you to connect larger hard drives to your system, but is more expensive to start with. If you're sure that 240Mb will be enough, then the IDE route is the best.

RISC OS 3.1 is an upgrade which is basically independent of the hard disc upgrade. I don't believe any of the hard drive upgrades have problems with RISC OS 2, but you should ask the companies concerned. A RISC OS 3.1 upgrade is well worth getting, in any case, as a lot of software is starting to expect it.

RISC OS 3.1 will support high-density discs; unfortunately, your floppy disc drive won't. There used to be a hardware upgrade for this, but the company that sold it (Greyhound Marketing) has ceased trading, and I don't know of anyone else selling the upgrade. Beebug's high-density drive podule may be suitable for the A3000, but it may not give you a replacement internal drive.



3D menus and raised dialogue boxes are supplied by Ting Zwei Kuei's *WimpPatch* on the Risc PC. The nice 3D effect on the icon bar gets a bit confused when it scrolls, though.

Q I was interested to see in the October issue (page 38) that it is not possible to run a modem faster than 9600 bps on pre-A5000 machines.

I use a 4Mb ARM3 A3000 with RISC OS 3.10, with the upgraded serial modules installed. Using a US Robotics Sportster 14400 Fax/Modem, I reliably connect at 14400 to my local Demon vPoP and other BBSs including Arcade.

Perhaps it might be worth mentioning this in a future issue, as I'm sure that more than a few people are probably being deterred from going online because of the claimed 9600 max.

J William Kay
via the Internet

A **What the older machines are capable of in terms of serial port speed is a matter for some debate. Certainly, many seem to be able to run faster than the 'official' maximum of 19,200bps if you install Hugo Fiennes's serial block drivers (which come with most of the Internet packs and present a consistent and reliable serial interface to applications). 38,400bps is common, and some people claim to be running pre-A5000 serial ports at the 57,600bps required to get the best performance out of a 14,400bps modem. The modem to computer speed should theoretically be four times the modem to phone line speed, because the modem compresses data by up to four times as it sends it down the phone line. I've yet to see this theoretical maximum achieved in practice, though.**

It's that old chestnut 'Your Mileage May Vary'. If you have a chance to test the connection between your computer and a modem – for instance with the *SerTest* program on the cover disc – do so. Mind you, just because you can send short strings to the modem at a particular speed does not in itself imply that you'll be successful transferring masses of data. AU

Acorn Customer hotline

Essential information for all Acorn users, compiled by Dave Walker of Acorn Customer Services exclusively for Acorn User.

Questions and answers

Q: I see in my default configuration that ADFSBuffers isn't set to zero any more; what does this do?

A: The version of ADFS in RISC OS 3.6 has a buffer management system which squeezes greater data transfer rates out of your drives. In earlier versions ADFS-Buffers should be set to 0, however on 3.6 it is possible to allow the disc heads to speculatively 'read ahead' of the data being loaded and cache it in RAM, in anticipation of that data having subsequently to be loaded from disc, and to cache data to be written so that it can be written when the drive isn't already busy reading or seeking.

Back in ROM

RISC OS 3.6 ships with *Printers* version 1.45. Unlike previous versions of *Printers*, 1.45 is in ROM, along with many of the other bundled applications; for example *Edit*, *Draw* and *Paint* have been incorporated into the ROM. *Configure* remains as a soft-loaded application residing in *!Boot.Resources*, from which it can be removed if (as may be necessary in an education environment) the need arises to disable the machine's capability to configure its CMOS RAM.

It is not obvious how a ROM-based application can be set up to have a given configuration on start-up. This is where the Boot hierarchy comes into its own; the appropriate place to store user-configured parameters – if it is not possible to store such data within the application itself – is within *!Boot.Choices* in a directory created and appropriately named by the application. The boot sequence is currently used by *Printers*, *Alarm* and *Boot* itself for storing configuration parameters.

UpSet?

RISC OS 3.6 users will find a file inside their boot sequence called *ADFS::4.$.!Boot.Choices.Boot.PreDesk.SetUpNet*.

This file disables the networking modules built into ROM when they are not needed, in order to save memory. It is supplied in the form you need for a machine not using a network at all. If you wish to use a network, this file needs to be altered; the file contains adequate commentary documentation for its configuration in an Ethernet-based system, however it does not make any specific reference to its use in conjunction with the much slower Econet system. The following modules need to be enabled for Econet use:

- NetFS
- BBCEconet
- NetPrint
- NetStatus
- NetUtils
- NetFiler

Once the appropriate modifications have been made to the file, you will need to *RMREINIT the modules which you need to have active and then reboot your machine.

Access all areas

With *Access+*, you have the choice of making people accessing the exported areas of your disc enter a password before they can do so. Although *Access's* plug and play capability remains the fundamental philosophy behind its design, it is possible to make some further modifications:

Client machine boot: Client machines can be configured to boot from the *ShareFS* filesystem, as detailed on page 17 of the Acorn *Access+* release note; there is another method of specifying the name of the 'boot disc' which is particularly useful if you are using *Access+* structured sharing, when the 'boot disc' is shared without an icon; that is to use the command:

```
*CONFIGURE SHAREBOOT <discname>
```

This command, however, needs to be followed by the command:

```
*FX 162 81 15
```

in order that the disc will be correctly used as the boot device.

***AccessCD* and *AccessCDS*:** When a system first sees these applications, there is a possibility that it will cease to accept any user input. This can be prevented by making the following alterations to the file *!AccessCD(S).!RunCDFS*:

Line 31:

```
if "<Wimp$State>" = "desktop" then
run...
```

should be changed to :

```
if "<Wimp$State>" = "desktop" then
filer_run...
```

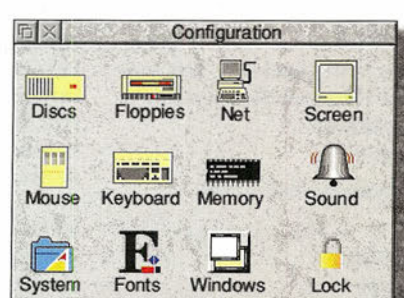
that is, add 'filer_' to the existing line.

Line 38 (the last line): add a Return character to the end of the line to enable the cache mechanism.

Also delete the file *!AccessCD.sharecd* if it is present.

At your service...

Some confusion has developed regarding the provision of assistance from Acorn in setting up and maintaining *InterTalk*. As always, postal and email queries to Acorn remain free of charge. The offer from STNC enclosed in the *InterTalk* package pertains to an independent chargeable service arrangement whereby installation and configuration problems are met and dealt with by an engineer sent out to your site. Take-up of the STNC agreement does not affect the support obtainable from Acorn. AU



Configure is not in ROM in RISC OS 3.6. This helps to stop unwanted tampering with the system.

Acorn Customer Services
Acorn Computers Ltd
Acorn House, Vision Park,
Histon, Cambridge CB4 4AE
E-mail: customer.services@acorn.co.uk

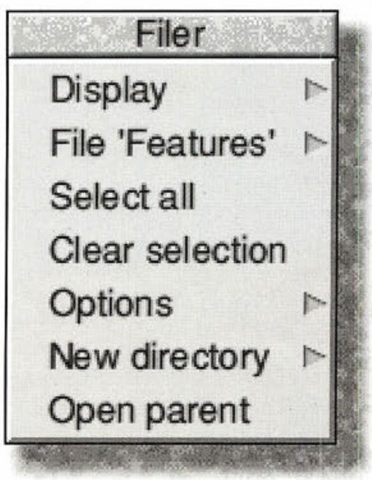
Absolute

Last issue I explained about selecting a single file or a group of files, and said that you could open a menu to perform various operations on the files that were selected. The menu is opened by clicking with Menu in a Filer window; if there is already a file selected (with icon inverted) then the menu refers to that file, if not it refers to the file (if any) under the pointer when the Menu button was pressed. A typical menu is shown in figure 1.

The main menu

The functions of the items on the main Filer menu are described below:

Display: this leads to a second menu divided into two halves which controls how the directory looks on screen. The upper half changes the appearance of the files – large icons, small icons or with full date and size information – while the lower half controls how the files are sorted. There are four options: name, date, size and type. If all this is old news to you, have pity on the reader who recently wrote in complaining that ever since he'd bought his Risc PC, the files kept re-arranging themselves, and was this some new feature of RISC OS? It turned out that he'd accidentally switched 'Sort by date' on, but never realised the facility existed though he'd had an Archimedes for over five years.



The main File menu.

File 'filename': leads to a menu (described later) allowing you to do things to the selected file such as change its name and type. Note that this will change to App. 'appname' when over an application and Dir. 'dirname' when over a directory, or will be greyed out if nothing is selected.

Select all: selects everything in the directory.

Clear selection: de-selects everything in the directory.

Options: this leads to a small menu showing the options for copying, deleting and moving files. They are as follows: confirm – ask before performing any operation on a file; verbose – always give information on what the Filer is doing; force – always perform the operation, even if it overwrites a later file of the same name or *deletes a locked file*; newer – only overwrite an earlier copy of a file.

Newer is a sensible option to have set, and should only be turned off if you are sure you are not going to overwrite anything precious. Force is a very dangerous option – use with care. Confirm is an option left on only by the paranoid; it makes most Desktop operations far too slow to have on permanently. Note that none of these options will have any effect on an application saving to disc; it is up to applications to police themselves and behave sensibly when asked to overwrite an earlier copy of a file. Not all do this, so beware.

You will also get this menu if you click with Menu over a Filer information box opened when you copy, delete or do anything to a file. The difference is that there will be a fifth option at the top of the menu: 'Faster'. If you choose this then the Filer will perform the operation faster, but other operations on the Desktop will slow down.

New directory: allows you to create a new directory – just type the name in and press Return.

Open Parent: opens the directory above the one you are in. You can also do this by Shift-clicking with Adjust on the directory window.

The file menu

Figure 2 shows the File 'filename' submenu. All the entries on this menu are concerned with performing operations on files (or directories or applications). This is the menu sought after by refugees from the Macintosh, who spend their first half-hour trying to find the wastebasket or attempting to rename a file by placing the caret in its name in the directory window. It has the following entries:

Copy: leads to a 'save box' allowing you to drag an icon representing the file to another directory, possibly changing its name in the process. If you simply enter a new name and press Return, the file is copied within the same directory.

Rename: allows you to re-name a file. Type the new name in and press Return. The icon into which you type your text initially contains the original name of the file. This is fine if you want to add a '2' to the end, but to rename it completely you will need either to delete the letters or to clear the icon with the Ctrl-U keypress.

Delete: deletes the file. Unless you have 'Confirm' set or have locked the file, this is a fairly irreversible process. There is no 'undelete' menu entry, and to get the data back you would have to use a complicated package like *Archimedes Disc Rescue*. It is rare to delete files accidentally, but you have been warned.

Access: leads to the submenu and dialogue box shown in figure 3. These control who can and cannot write to and read a file, and whether you can delete it. The public/private parts of this structure are only relevant if you are on a network, and affect whether or not other users on the network can read a file in your area. If you set a file to 'protected' or 'locked' (they are equivalent) then you will not be able to delete the file accidentally, unless you have 'Force' set as one of the options. This is a very good way of protecting a valuable file against deletion (but then, so is taking a backup).

Count: counts the number of bytes in the file, or group of files. If you use 'Count' on a directory (or application), the numbers of bytes of all the files in the directory are added together. This, incidentally, underestimates the disc space used, since there are some overheads in even an empty directory (which is why if you perform a count on your entire hard disc it will suggest that you have more free space than you actually do).

Help: only becomes activated for applications which have a file *!Help* within themselves. If this is the case, when you choose this option the *!Help* file is 'run' which usually involves loading it into a text editor. *!Help* files provide useful information about a program.

Info: opens a window giving information about the file. What is given is the file's name, its type, size, access details and date

RISC OS 2 users

OK, I cheated. The menus described here are RISC OS 3 menus; the RISC OS 2 ones have fewer entries and will allow you to do less. In particular, the very useful 'Newer' option is missing, as is any entry allowing you to change the file type. The options that do exist work roughly as described in the text, though.



David Matthewman describes the all-important Filer menu in detail.

beginners

of creation. If the file type has a known icon associated with it, the icon is also displayed in this window.

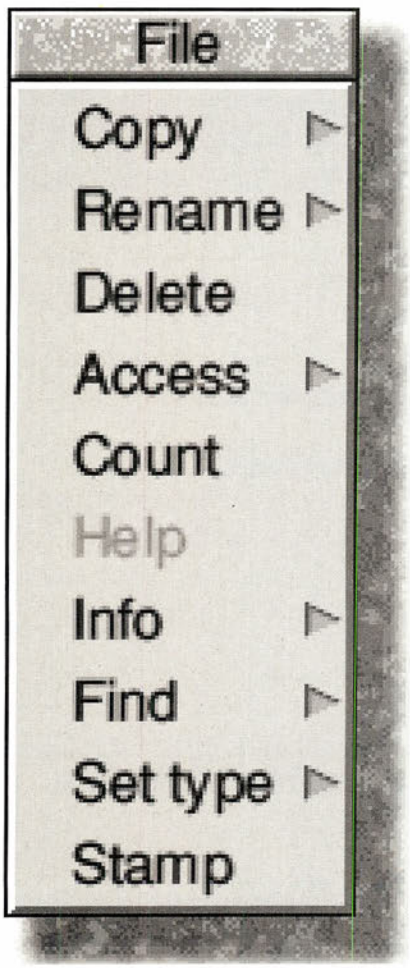
Find: allows you to search a directory or set of directories for a file with a given name. You can also search for directories and applications. If you only know a part of the name you can use the '*' and '#' signs in the name to replace missing characters. The '#' sign will stand for a single character while the '*' sign stands for any number of characters, including none. Therefore, 'Kat#' will find files *Kath*, *Katy* and *Kat4* while 'Kat*' will find all these and also *Katherine* and *Kat*. Once a file has been found you have the option to run it or open the directory containing it, or to abort or continue the search.

Set type: lets you change the file type of a file. This is especially useful when you have imported the file from another computer system or downloaded it from the Internet, and it has lost any file typing information. The type of a file determines what the Filer does with it when it is 'run' by your double-clicking upon it – it may be run as a program, loaded into an editor and so on. It also determines the icon that the file is given.

The file type is a three-digit hex number, but you usually don't need to remember that. If the type is one that the Filer already recognises – perhaps because you have seen or used an application that knows what to do with it – it will have a textual equivalent such as 'Text', 'Sprite' or 'Archive'.

Stamp: this sets the date and time information of the file to the present – useful for updating an old file which might otherwise be in danger of being overwritten by a newer version. Note that this is not usually a sensible thing to do; the date information on a file is usually important and the 'Stamp' option should be used with care.

The beginners' series will be taking a well-earned break for a few issues to make way for more pressing articles, but it will be back next year to offer comfort for those still bewildered by some of the more basic aspects of your machine. AU



The File 'filename' submenu.

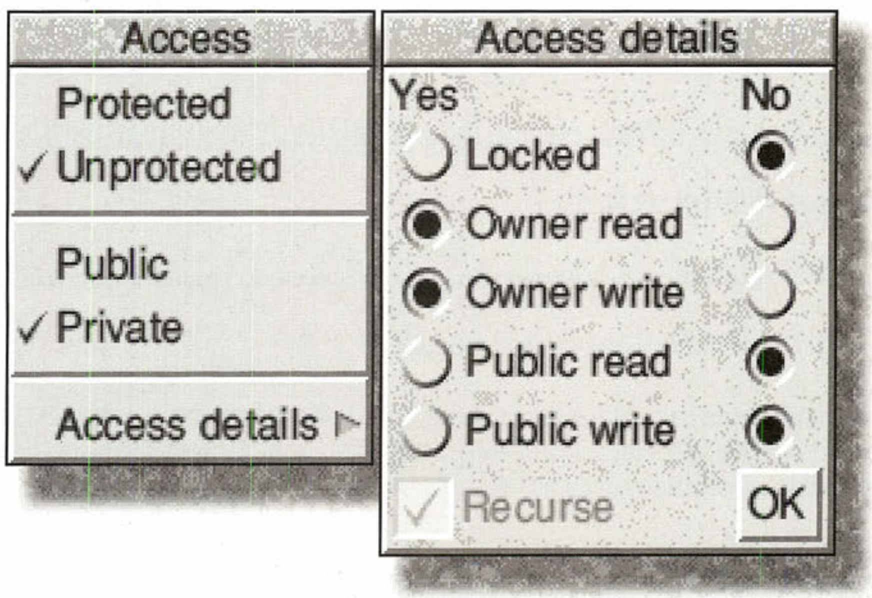


Figure 3 – setting the access details for a file. The dialogue box controls the access details more precisely, but the menu is easier to understand for beginners.



Run the RISC

Mike Cook invites readers to 'Hop on board the Bus' in our regular hardware column.

As I said in my first article in *Acorn User* I have two audiences; those friends that have followed me from *Acorn Computing* and those to whom all this is new. Therefore, in an attempt to get everyone up to speed, I would like to look at a method of interfacing I first examined about five years ago, the I²C bus (that's pronounced 'Eye squared sea'). If you do remember it from last time there is something new in the Desktop monitor program, but more of that later.

The I²C bus is a serial protocol designed by Philips and others to allow the easy interconnection of devices within the same chassis. It is mainly used in consumer electronics like TVs, monitors and video recorders. In fact, if you have an Acorn multisync monitor it is likely to contain some devices that use this bus. What it does for the monitor manufacturer is to cut down on internal wiring by allowing sub-systems to communicate with each other using only two wires; these wires carry a clock signal and a serial data signal.

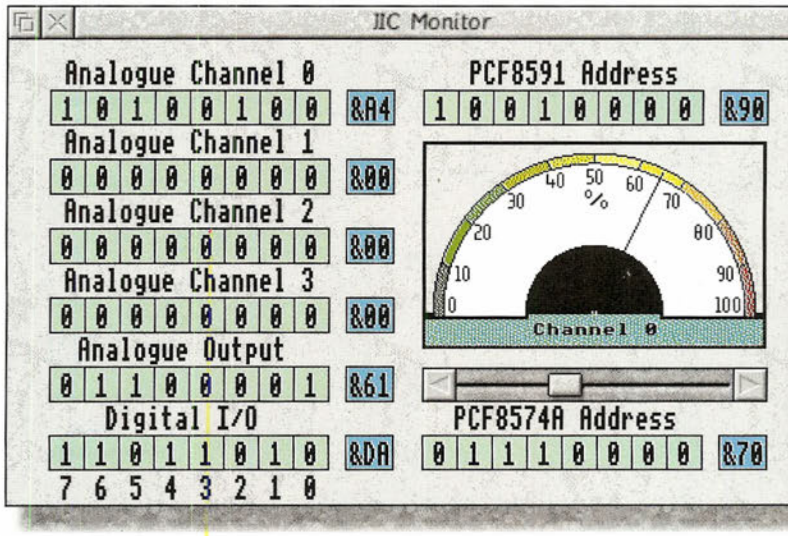
The I²C bus in your Arc

When Acorn designed the RISC series of computers they used an I²C device which contained the clock, calendar and some battery-backed-up memory. This was ideal because it meant that configuration options could be kept permanently in this memory. Therefore, software was included in the operating system to communicate with these devices. Due to a mixture of short-sightedness and cost constraints, the wires for this interface are not available on a socket on the outside of the case but are available on the inside. However, some third-party expansion cards also include a socket for this bus.

The idea is that all devices are connected to the same clock and data lines, but each device has its own unique address so that the computer can call upon an individual device to engage in data transfer. It is a lot like a network, but instead of having individual computers you have individual chips. Various speed chips are catered for by allowing the sending chip to generate the clock signal or the receiving chip to stretch it. This means that if you want to add another device you simply 'chain' it onto the end of your previous board. The first thing we have to do is get the signals out of our computer. There are four connections in total: data, clock, +5 volts and ground. All of these are available on the expansion podule backplane, and if you have a computer with no backplane fitted you can plug directly in the socket on the board. Alternatively, if you have all your backplane slots full then you can solder wires on the back of one of your fitted boards.

The backplane connector is a 64-way three-row DIN connector type 41612 C; this means that there are three rows of pins on the connector, but only the top and the bottom are loaded with pins leaving the middle row empty. You can use the 96-way connector of the same type if you have one to hand but the middle row is only used on the Risc PC.

The rows on this connector are labelled A, B and C in absolutely minute printing on the back – you might have to have a magnifying glass to help you see them if you are over 30. What we want is the data line on pin 19C, the clock line on pin 20C and the earth or ground on pin 1C and 1A. It's a good idea to strap these two together to reduce the contact resistance. Finally, if you are using a backplane then you need the +5 volts on pin 32A, otherwise you need to pick that up from the main circuit board.



The *PortMonitor* program has been re-written as *IIC_Mon* and now features an attractive analogue display.

Getting the signal out

What you need to do is bring these wires out on a socket of some sort; this can either be mounted on the connector, brought out to a socket on the back of the computer, or on a flying lead. If you do use a flying lead please make sure it is physically held firm inside the computer with a cable tie or even a heap of hot melt glue so there is no tearing of connections when the lead is pulled too hard. Whatever you use, to be compatible with my board and the one sold by ICS the lead should end up with a Molex 5051 socket as shown in figure 1.

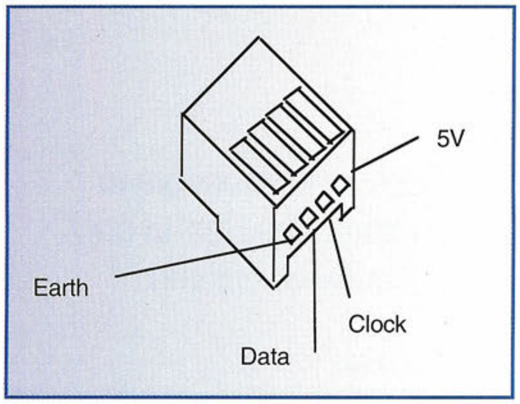


Fig 1: The Molex 5051 socket.

There may be a few connectors on the back of your computer that are not used like the Econet socket; these can be pressed into service for the connector.

Having got our signals out we now need something to connect to them. There are a great many I²C chips available – in fact the Philips data book covers two volumes – but most are designed for consumer electronics and are not so useful. Two devices stand out as being very useful indeed: the PCF8574 and the PCF8591. The PCF8574 is an 8-bit input and output port and the PCF8591 is a combined four-channel A/D (analogue to digital) converter and a single D/A (digital to analogue) converter. Therefore I have designed a board that contains both these devices.

If you need more capability then the boards can be chained together. The circuit is shown in figure 2 and as you can see there is not much to add to the chips except that I have included a transistor as an optional buffer to the D/A. According to the data sheets, unused analogue inputs must be earthed so you will see a select link on each input. This is simply three pins and a shorting link – the type that is scattered inside the computer – and allows you to earth the channels currently not being used. Similarly, there are links on the device address lines: fitting a shorting link gives a logic zero, removing it a logic one.

Each device must have a unique address on the bus. The address is in two parts: a fixed part that is the same for each type of chip, and a programmable part taken from the address input pins on the chip. For the PCF8591 there are four bits fixed and three programmable, which means you can only have eight PCF8591s on the bus but have no need to worry about address conflicts with other chips as the fixed part is unique to that chip type. With the 8-bit input/output port there are two versions of the chip – the PCF8574 and the PCF8574A – which each have a different fixed part to their addresses. All these are shown in figure 3.

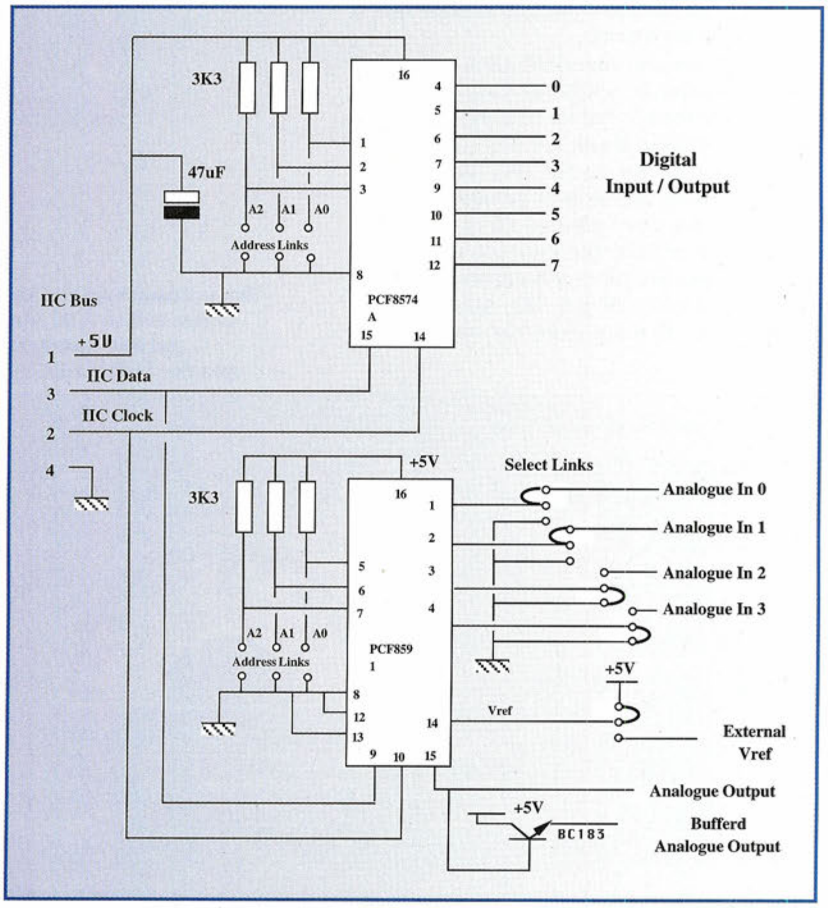


Fig 2: The I²C Interface board.

Controlling software

As you know, the hardware is only half the battle, so let's now look at the software to control this bus. Basically, the operating system offers a single call to deal with the I²C bus: IIC_Control which is SWI &240. This is passed the device address, a pointer to a data block and the length of the block. Note that the least significant bit of the address is the read/write line and should be set depending upon what operation you want.

When the SWI call returns, the buffer's contents will have been either sent to the I²C device or filled by it, depending on whether you were reading or writing. This means you can rapidly read or write several values with a single command. For example, you could fill up a block of memory with a sequence of numbers and output them all in one go. This is useful for waveform generation or for fast data gathering.

The PCF8574 is simple to operate; you just read it or write to it (make sure that if you are using it as an input you first write logic ones to it). The PCF8591, on the other hand, is much more complex as it contains a control register; this is where the first byte to be written to the device ends up. Subsequent bytes are acted upon according to the contents of this control byte.

The analogue input side is capable of being run in four different modes – each mode uses the input pins differently to create an input channel. The simplest, mode zero, uses each input as an input channel. The others combine the inputs using differential amplifiers to create fewer input channels. A differential input simply measures the difference between two inputs and not the absolute voltage: more on what's available later.

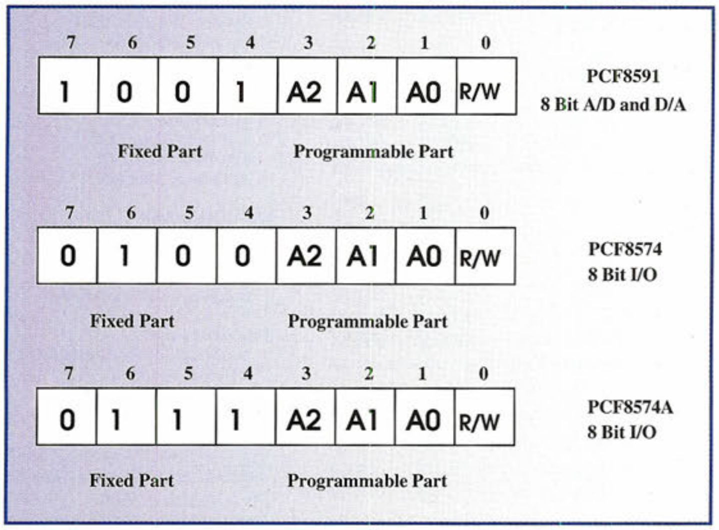


Fig 3: The addressing of bus devices

The control byte

Figure 4 shows the layout of the PCF8591 control byte. This is the first byte sent to the device, all subsequent bytes will be considered as data bytes. As you can see, bits four and five control the input mode; these bits should contain the mode number you want to use. Bits zero and one control which channel you want to read. Note that in some modes it will be possible to set them to non-existent channels; when this occurs, the PCF8591 automatically uses the highest available channel.

Bit two is the auto-increment flag. When this is set the channel selected will be moved onto the next available one. Finally, bit six (when set) is used to enable the analogue output, and bits seven and three must be at zero.

If you are writing to the board, then all bytes after this control byte will be sent to the analogue output. If you are reading from the device, the first byte read will be the value of the last channel to be converted. While this is being sent, the next channel is converted and sent out as the second byte. That's why in the test software, described below with the increment flag set, the channels were read in the order Ch3, Ch0, Ch1, Ch2.

The software

On the cover are four simple programs that illustrate reading and writing to each device. It is written assuming all address links are made, that is giving a logic zero.

When writing to a device, the programs put out an increasing binary count giving a ramp on the analogue output or a series of differing frequency square waves on the digital outputs. The reading programs show the result in hex for the digital input or each four of the analogue inputs.

These are simple BASIC routines suitable for incorporating into your own programs. However, I have found the parallel port monitor so useful, I have written something similar for the I²C bus. It turned out to be a much more complex application because these are much more flexible devices. This is also on the cover disc and it is so friendly that you can run it without any extra I²C devices attached; if you do, the data boxes will contain 'X' instead of '0' or '1'. The application can be used on any programmable address of the two device and with any mode.

The analogue digital inputs and outputs are shown in both binary and hex form to allow you to easily test and debug any circuit you connect to these devices. Simply click on any of the bits to change their state. In addition, one of the data channels can also be routed to an analogue-style meter, which is divided into percentage markings. When a value is half full-scale or &80 it will show 50 per cent. The analogue output is coupled to a slider bar for easy adjustment, as well as being able to set each bit.

Perhaps the best bit is the A/D converter mode selection menu – instead of using a single word to describe the mode there is a diagram of how the inputs are connected up so you can see the different wiring options you have. Note that if you choose a mode with less than four analogue inputs the unused boxed will disappear and if a meter was connected to one of these it too will disappear. Suffice it to say, it took a long time to write this application.

Well there you have it: another weapon in our interfacing armoury. If you would like to see any of the I²C projects I covered in the past, they are available on my ftp site (149.170.200.3) or through my WWW pages on http://149.170.200.3/Physics/Acorn/About.html. I hope to make old *Acorn Computing* articles available there, but it will take time to convert them. AU

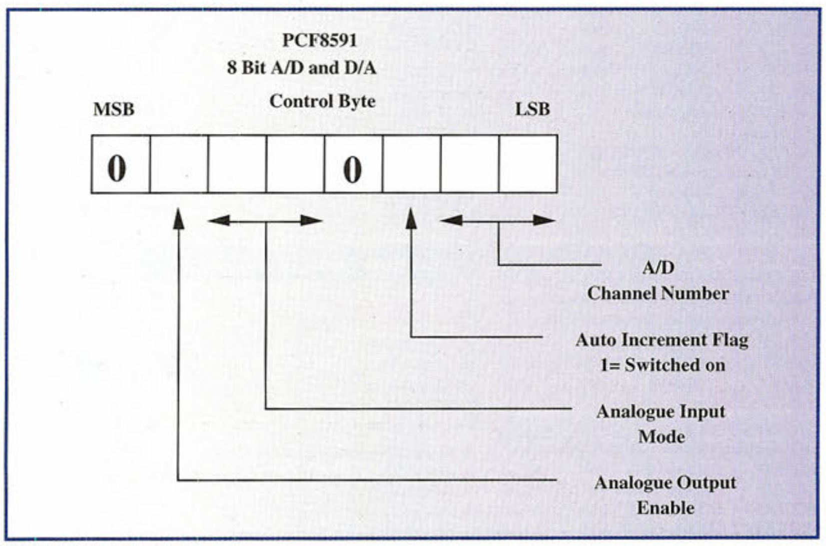


Fig 4: The control byte

Acorn 32-bit RISC Computer Systems



RicsPC Computer Systems

Acorn's latest RiscPC range includes the most powerful products to date at remarkably affordable prices. It allows increasing interconnection and networking with other technologies and systems, and its modular design and architecture provide unlimited potential for upgrading to and benefiting from technologies of the future.
The RiscPC is the ideal platform for multimedia applications thans to its powerful sound and graphics capabilities. With the addition of the 486 card the RiscPC opens up a whole new world of opportunities, for running PC DOS or Windows applications.



A7000 Computer Systems

The A7000 is the new high performance low cost RISC based computer. Designed around the new ARM7500 processor the A7000 offers a compact powerful system, providing full multimedia facilities, as well as maintaining a strong market lead in both education and the home/office environment. The A7000 NET system is the ideal workstation for use on a network, where a hard disk is not necessary.



A3010, A3020, A4000 & A4

Designed for those taking their first steps into computing, these powerful 32-bit machines provide all you or your children need to start out. The A3010 and A3020 are ideal for entertainment or education, whereas the A4000 has a place in the home office environment. As with all Acorn machines they are compact in design, but powerful with it. Whatever your needs, you can be sure there is a model suitable for you.

FREE Carry Case and Mouse Mat with every A3010 or A3020 purchased this month.

RiscPC 600 Systems	14"	17"
RiscPC 600 2M HD210	£1089	£1319
RiscPC 600 5M HD210	£1199	£1409
RiscPC 600 4M HD425CD	£1259	£1529
RiscPC 600 'X' System	£poa	£poa
RiscPC 600 Early Years	£1189	£1469
RiscPC 600 Learning Curve	£1189	£1469
RiscPC 600 Home Office	£1219	£1499

RiscPC 700 Systems	14"	17"
RiscPC 700 5M HD425	£1359	£1629
RiscPC 700 5M HD425CD	£1469	£1769
RiscPC 700 10M HD850	£1689	£1969
RiscPC 700 10M HD850CD	£1799	£2079

All above systems are covered by 1-year on-site warranty

A7000 Systems	14"	17"
A7000 2M NET	£889	£1159
A7000 2M NET CD	£999	£1259
A7000 2M HD425	£929	£1199
A7000 2M HD425 CD	£1029	£1299
A7000 4M HD425	£1019	£1289
A7000 4M HD425 CD	£1129	£1399

All above systems are covered by 1-year on-site warranty

A4000 Systems	AKF52	AKF50
A4000 2M HD210	£719	£759
A4000 2M Early Years	£759	£799
A4000 2M Learning Curve	£759	£799
A4000 2M Home Office	£789	£829

A3020 Systems	AKF52	AKF50
A3020 2M FD	£509	£549
A3020 2M HD80	£629	£669

A3010 Systems	No Mon	AKF52
A3010 1M Action Pack	£149	£349
A3010 2M Early Years	£339	£509
A3010 2M Learning Curve	£339	£509

A4 Notebook	No Mon	AKF50
A4 4M HD80	£1439	–

Upgrades & Options

RiscPC Options

Memory

4Mb	£88	8Mb	£203
16Mb	£319	32Mb	£669
1Mb VRAM	£49	2Mb VRAM	£110

IDE Hard Disk Drives

Conner CFS420A 420Mb	£99
Conner CFS635A 540Mb	£115
Conner CFS850A 850Mb	£128
Conner CFS1080A 1.08Gb	£176
ADFSManager software	£25

SCSI Hard Disk Drives

IBM 84G9001 1.0Gb	£299
IBM 74G7044 2.0Gb	£699
IBM 74G7045 4.0Gb	£1099
32bit SCSI Interface	£159

CD-ROM Drives

Indigo Dual Speed CD-ROM	£175
Indigo Quad Speed CD-ROM	£199
Proteus 4x CD-ROM/Optical	£549

(requires SCSI-2 interface)

Miscellaneous

486SX33 2nd Processor Card	£199
Ethernet Interface	£99
Additional Case Module	£99
3-year On-site warranty	£poa

Acorn Pocket Book II

Pocket Book II 256K	£202
Pocket Book II 512K	£249
Pocket Book II 1Mb	£279

Accessories

128K RAM	£49	256K Flash	£59
512K Flash	£85	Mains PSU	£12
A-Link	£42	PC Link	£59
MAC Link	£68	Parallel Link	£25
Plotter	£16	OPL Editor	£21

EDUCATIONAL DISCOUNTS are available on certain products, call 01582 745555 for details

3.5" IDE Hard Drives

Conner			
CFS540A	540Mb	12ms	£108
CFS850A	850Mb	12ms	£128
CFS1275A	1.27Gb	11ms	£176
IBM			
84G8998	1.05Gb	10ms	£189
Maxtor			
7540AV	540Mb	12ms	£109
7850AV	850Mb	12ms	£139
71260AT	1.26Gb	12ms	£199
Quantum			
Trailblazer	420Mb	12ms	£99
Fireball	540Mb	12ms	£119
Trailblazer	850Mb	12ms	£138
Fireball	1.08Gb	12ms	£174
Seagate			
ST3660A	545Mb	12ms	£102
ST5850A	850Mb	12ms	£138
ST31220A	1.05Gb	12ms	£168
Western Digital			
AC2635	635Mb	10ms	£115
AC2700	740Mb	10ms	£145
AC2850	850Mb	10ms	£134
AC31000	1.1Gb	10ms	£179
AC31600	1.62Gb	10ms	£365

Interfaces & Accessories

ADFS Manager	£25
16-bit IDE Interface – A300/A400	£39
8-bit IDE Interface – A3000/A3010	£59
Dual IDE Interface cable	£8
A300/A400 HDD Mounting Kit	£5

A3000 IDE Hard Drives

All hard drives are supplied fitted to an 8-bit interface for internal fixing

ADA2360	170Mb	12ms	£179
ADA2090	340Mb	11ms	£249
ADA2200	510Mb	11ms	£299

Syquest Hard Drives

SQ3270A	270Mb IDE	Int	£259
SQ3270S	270Mb SCSI	Int	£269
SQ3270Ex	270Mb SCSI	Ext	£369
SQ5200Ex	200Mb SCSI	Ext	£358
SQ327	270Mb Cartridge		£48
SQ2000	200Mb Cartridge		£59

SCSI Hard Disk Drives

Conner			
CFP1080S	1.0Gb	10ms	£289
CFP2105S	2.15Gb	9ms	£525
CFP4207S	4.22Gb	9ms	£838
Fujitsu			
M2684S	532Mb	12ms	£125
M1606SA	1.1Gb	10ms	£265
M2903SA	2.0Gb	12ms	£565
M2909S	3.0Gb	11ms	£849
IBM			
84G9001	1.0Gb	10ms	£299
74G7044	2.0Gb	8ms	£699
74G7045	4.0Gb	8ms	£1099
74G7073	5.25Gb	8ms	£1249
Quantum			
Maverick	540Mb	12ms	£143
Fireball	1.08Gb	9ms	£249
Atlas	2.1Gb	9ms	£585
Seagate			
ST5660N	528Mb	12ms	£216
ST31230N	1.05Gb	9ms	£329
ST3243ON	2.1Gb	9ms	£609
ST15150N	4.2Gb	11ms	£1220

Interfaces & Accessories

16-bit SCSI Interface – A300/A400	£89
32-bit SCSI-2 Interface – RiscPC	£159
Dual SCSI Interface cable	£9
25'D' TO 50w SCSI Interface cable	£15
50w to 50w SCSI Interface cable	£15
SCSI-2 Interface cable	£20

Canon IX4015 Scanner

Canon



The IX-4015 is a compact A4 flatbed scanner offering full 24-bit colour scanning up to a max resolution of 400 x 800 dpi.

- 400 x 800 dpi resolution in 24-bit colour
- 400 x 1200dpi resolution in 256 grey scales
- Connection via SCSI interface (not included)
- ImageMaster & Twain driver

Special Offer Price £549

- Upgrade to PhotoDesk software £110

CD-ROM Drives

Oscar CD-ROM Drive

A low cost dual speed CD-ROM drive that attaches to parallel printer port. Suitable for use on A3010, A3020, A4000, A5000 and A4 Notebook

Oscar CD-ROM Drive - parallel £199

Bravo CD-ROM Drive

A low cost dual speed CD-ROM drive that has a built-in audio mixer. Connection to the computer can be by parallel printer port or via SLCD interface.

Bravo CD-ROM Drive - parallel £249
Bravo CD-ROM Drive - A5000 £249
Bravo CD-ROM Drive - A3000 £249

Victor CD-ROM Drive

A quad speed CD_ROM drive that connects to the computer via SCSI interface (not included)

Victor CXX442 CD-ROM Drive £299

Indigo CD-ROM Drive

A range of internal CD-ROM drives for the RiscPC. Two versions are available – dual speed and quad speed.

Indigo CAA300iA – Dual Speed £175
Indigo CAA340iA - 4x Speed £199
Indigo CXX441 - 4x Speed SCSI £199

Proteus Optical CD-ROM Drive

A quad speed CD_ROM drive that also has the ability to read and write 650Mb optical disks. Connections is via SCSI interface.

Proteus CS-ROM Drive - Internal £549
Proteus CD-ROM Drive - External £649

Speakers

Aries Stereo Speakers		£6
Aries Hi Fi Speakers	10W	£19
Aries Hi-Fi Pro Speakers	25W	£28
Aries Digital Speakers	25W	£39
Aries Digital+ Speakers	70W	£48
Aries UltraPower Speakers	160W	£99
Aries Internal Speakers		£15
Aries Stereo Headphones		£4.50
Aries Microphone		£4.50

Aries Fax Modems

Enter the world of high speed communications with the new Aries XLink range of fax modems. Two models are available, offering speeds of V32bis 14400bps or V34 28800bps. Error correction and data compression is standard on all models.

When used with the ArcFax software, you can send faxes directly from your computer, as easily as printing a document.

- 14400bps V32bis or 28800bps V34 data rates.
- V32, V32bis, V22, V22bis and V21
- Error correction to MNPS and V21
- Data compression to MNPS and V42
- Call back security
- Synchronous & Asynchronus operation
- Group 3, Class I & II fax at up to 14400 (V17)
- Group 1 and 2 fax compatible (V27ter and V29)
- 100% Hayes compatible
- 3-year manufacturers warranty
- BABT approved

XLink XL144e Fax Modem	£87
XLink XL144e Fax Modem & ArcFax	£107
XLink XL288e Fax Modem	£159
XLink XL288e Fax Modem & ArcFax	£179

Multiscan Monitors

Acorn Monitors		
AKF52	14"	£239
AKF50	14"	£299
AKF60	14"	£299
AKF85	17"	£499
Aries Monitors		
Alphascan Pro LR	14"	£185
EnergyPro 6000i LR	15"	£239
NEC		
XV15	15"	£279
XV17	17"	£559
Panasonic		
TXD1562	15"	£260
TXD1733	17"	£449
TXD2051	20"	£1019
Sony		
CDP15SF1	15"	£302
GDM17SE1	17"	£808
GDM20SE1	20"	£1395
Taxan		
EV 410LR	14"	£189
EV 580LR	15"	£255
EV 895LR	17"	£795
EV 1080LR	20"	£879

Autumn Special Offers

All items advertised on this page are new, unless otherwise stated. All offers are available while stocks last and will not be repeated once stocks are exhausted. Special prices are available on certain items when purchased in quantity. Please call 01582 745555 for details.

Acorn Hardware

16bit Cached SCSI Card - A300/A400	£65
16bit IDE Interface - A300/A400	£24
16bit SCSI Card - A300/A400 (Lingenuity)	£45
170Mb Internal IDE Hard Drive - A3000/A3010	£179
1st Word Plus R2.0 Manual	£5
25MHZ ARM3 Turbo Card	£95
2Mb RAM Upgrade - A3000	£49
3.5" / 5.25" Disc Interface - A300/A400	£5
486 25MHz PC Card - A300/A400	£285
486 50MHz PC Card - A300/A400	£399
486 PC Card - A3020/A4000	£200
4Mb RAM Upgrade - A3010	£129
4Mb RAM Upgrade - A540/R260	£249
8bit Internal IDE Interface - A3000/A3010	£45
A3000 External Podule Case	£8
A3000 Monitor Stand	£12
A3000 Power Supply	£30
A3000/A3010 Carry Case	£5
A3000/A400 3.5" Floppy Drive	£25
A4 Notebook Carry Case	£35
A4 Notebook Mains Adapter	£40
A4 Scanner - A300/A400	£99
A4 Scanner - A3000 External	£99
A4 Scanner Sheet Feeder	£45
A4000/A5000 3.5" Floppy Drive	£20
A5000 Power Supply	£69
Access P/P Network - A3000	£129
Access P/P Network - A5000	£145
Access P/P Network - RiscPC	£119
Acorn CD Multimedia Expansion	£250
Acorn DTP Manual	£10
Acorn PhotoView	£10
ARC Keyboard Extension Lead	£2
ARC Marconi Trackerball	£15
ARC MK4 Replacement Mouse	£16
ARC Quest Tracerball	£20
ARC to BBC Serial Link	£10
Artworks Made Easy	£8
Budget DTP on the Archimedes Book	£7
Calligraph A4-1200 Laser Printer	£899
Control on the Archimedes Book	£8
Dustcover - A300/A400 Keyboard	£3
Dustcover - A3000 & Monitor	£4
Dustcover - A5000 & Monitor	£5
Eagle M2 Multimedia Card (CC)	£309
Econet Interface - A300/A400	£15
EtherLAN602 Ethernet Card - RiscPC	£89
Ethernet Card (BNC) - A3020/A4000	£109
File Handling for All Book	£7
First Impressions Book	£28
Good Impressions Book	£10
Graphics on the ARM Book	£8
Hawk V9 MKII Digitiser (CC)	£175
HiVision Colour Digitiser - A300/A400 (HCCS)	£95
HiVision Colour Digitiser - A3000 (HCCS)	£95
I/O Expansion Card (Acorn)	£73
I/O Expansion Card - A300/A400	£20
I/O Expansion Card - A3000/A4000	£15
Impression II - Dabhand Guide	£8
MIDI Expansion Card (Acorn)	£59
Mono Handscanner - A300/A400	£89
Mono Handscanner - A3000 External	£30
Multiscan VIDC Enhancer	£10
PowerPad Dual Joypad	£29
PowerPad Single Joypad	£21
RISC OS 3 First Steps	£10
RISC OS 3.1 Hardware Kit - A300	£17
RISC OS 3.1 Software Upgrade	£74
RISC Technical Data Manual	£2
RiscPC 16bit Sound Card	£59
RiscPC 1MB VRAM Upgrade	£45
RiscPC 2Mb VRAM Upgrade	£110
Scan256 Handscanner - A300/A400	£85
Scan256 Handscanner - A3000 External	£125
ScanLight 256 - A3000 (CC)	£199
ScanLight Video 256 (CC)	£199
SuperVGA VIDC Enhancer	£10
TCP/IP Protocol Suite R2.0	£399
Ultimate Expansion - A3000 (HCCS)	£35
Ultimate Expansion - A3010 (HCCS)	£35
Ultimate uPodule - Analogue (HCCS)	£24
Ultimate uPodule - Digitiser (HCCS)	£90
Ultimate uPodule - HiVision Digitiser (HCCS)	£95
User Port/MIDI Expansion Card - A3000	£42
Vision Colour Digitiser - A300/A400 (HCCS)	£50
Vision Colour Digitiser - A3000 (HCCS)	£69
WIMP Programming for All Book	£5

Acorn Software

10/10 Dinosaurs	£12
10/10 Driving Test	£12
10/10 English	£12
10/10 Essential Science	£12
10/10 Maths - Algebra	£12
10/10 Maths - Statistics	£12
10/10 Structured Spelling	£12
4Mation Craftshop 1	£5
4Mation Craftshop 2	£18
4Mation Poster	£79
4thD Adventures of Sylvia Lane	£12
4thD Apocalypse	£10
4thD Arcticulate	£10
4thD Boogie Buggie	£10
4thD Carnage Inc	£12
4thD Chocks Away Extra Missions	£14
4thD E-Type 2	£15
4thD Enter the Realm	£12
4thD Galactic Dan	£10
4thD Grevious Bodily ARM	£10
4thD Haunted House	£15
4thD Holed Out Compendium	£10
4thD Pandoras Box	£10
4thD Real McCoy 2	£10
4thD Real McCoy 3	£12
4thD Real McCoy 4	£15
4thD Saloon Cars Deluxe Extra Tracks	£14
4thD The Dungeon	£16
4thD Time Machine	£12
4thD Virtual Golf	£15
4thD Virtual Golf Augusta	£12
4thD X-Fire	£5
Ace Tween	£28
Acorn 1st Word Plus R2	£5
Apricote Prophet Accounts	£120
ARC British Birds CD	£130
ARC Counties of Britain CD	£35
ARC Dictionary of the Living World CD	£30
ARC Granny's Garden CD	£27
ARC Inventors & Inventions CD	£138
ARC Materials CD	£97
ARC Number Games CD	£69
ARC Sherlock Holmes CD	£18
Beebug Chartwell	£18
Beebug DeskEdit 3	£19
Beebug Easy C Compiler	£40
Beebug Ovation DTP	£53
Beebug Sleuth v1.5	£36
Beebug TypeStudio	£23
CC Artworks Clipart CD v1	£14
CC Artworks Clipart CD v2	£14
CC Equasor	£20
CC Impression Business Sup.	£28
CC Show Page	£50
CC SpellMaster Disk	£10
CC WordWise Plus Disk	£5
Clares Armadeus	£20
Clares Graphic Writer	£10
Clares Plot	£56
Clares ProArtisan v2	£85
Clares Rhapsody v2	£39
Clares Rhapsody v3	£65
Clares Schema v1	£15
Clares Score Draw	£45
Clares Topographer	£53
Clares Vox Box	£20
Colton Fireworkz	£70
Colton Pipedream 4	£82
Colton Wordz	£75
ESM Investigating Maths	£25
Europress Fun School 3 - 5 to 7's	£10
Europress Fun School 4 - Under 5's	£10
Gamesware Cycloids	£10
Gamesware FRED	£10
Gamesware Games Wizard	£10
Gamesware Ixion	£10
Gamesware Xenon 2	£10
Grandslam Pacmania	£5
Hybrid Elite	£28
Icon EasiWriter	£109
Icon TechWriter	£142
Iota Complete Animator	£63
Krisalis Heimdall	£13
Krisalis HeroQuest	£10
Krisalis Jahangir Khan Squash	£10
Krisalis Nebulus	£14
Krisalis Oh No! More Lemmings	£9
Krisalis Populous	£10
Krisalis Sim City 2000	£25
Lingenuity Presenter GTi	£46
Longman First Page DTP	£37
Longman Insight	£50
Longman Landmarks - 1940	£19
Longman Landmarks - Aztecs	£14
Longman Landmarks - Civil War	£18
Longman Landmarks - Elizabeth I	£19
Longman Landmarks - Rainforest	£18
Longman Landmarks - Victorians	£20
Longman Logotron Logo	£49
Longman Look & Read - Skyhunter	£15
Longman Magpie	£15
Longman Numerator	£25
Longman Pendown	£35
Longman Pendown Etoile	£40
Longman Picture Point	£22
Longman Pinpoint	£49
Longman Revelation ImagePro	£110
Longman SBase Personal	£80
Millenium Diggers	£15
Minerva Atelier	£23
Minerva DataWord	£10
Minerva Easiword Plus	£36
Minerva GraphBox Professional	£85
Minerva Home Accounts	£20
Minerva Linkword - Spanish	£25
Minerva Multistore v2	£72
Minerva Order Processing/Invoicing	£79
Minerva PrimeWord	£39
Minerva System Delta+	£10
Oak Genesis Plus	£5
Oak Repro	£41
Oregan Arcturus	£16
Oregan Sally & Wally	£10
Quest for Gold	£10
Renegade Magic Pockets	£14
Renegade Sensible Soccer	£15
RiscPC Learn & Play Software Pack	£19
Serial Port Investigator II	£5
Sherston ArcVenture 1 - Romans	£20
Sherston Aztecs	£25
Sherston Badger Trails	£25
Sherston Crystal Maze	£21
Sherston Glimpse	£7
Sherston Hilighter	£10
Sherston Talking Stories - KS3	£26
Sherston Talking Topics - Homes	£8
Sherston Talking Topics SIX Pack	£38
Sherston Wizards Revenge	£13
Silicon ARC PCB v1.7	£62
Silicon Financial Controller	£100
Silicon Power Router	£40
Silicon ProSheet	£25
Silicon Robo Logo	£15
Silicon ShareHolder v2	£50
Silicon WimpGen	£52
Superior E-Type Extra 100 Miles	£12
Superior Ego: Repton 4	£10
Superior Masterbreak	£5
Superior Play It Again Sam 1	£12
Superior Play It Again Sam 3	£13
Superior Speech v2	£15
Superior Technodream	£11
Superior Zarch	£13

BBC Products

Single Master 128 Monitor Stand	£12
BBC B/B+ Power Supply	£25
Master 128 Advanced Reference Manual	£2
Complete BBC User Handbook	£2
Understanding Interword Book	£1
Advanced BBC B User Guide	£2
Acorn to PC Book	£7
Master 128 Twin ROM Cartridge	£2
Master 128 Quad ROM Cartridge	£3
1772 DFS Kit - BBC B	£20
BBC Marconi Trackerball	£15
AMX Mouse & SuperArt - BBC Master 128	£49
AMX Mouse - BBC B / Master 128	£10
BBC Quest Tracerball	£15
32k ROM/RAM Card	£15
128k ROM/RAM Card	£25
Speech Upgrade - BBC B/B+	£1
IEEE 488 Interface - BBC B	£15
BBC Master 128 Computer	£199
64K RAM Upgrade - BBC B+	£35
BBC Quest Paint ROM	£10
AMX SuperArt - Master 128	£26
AMX Stop Press - Master 128	£5
Wapping Editor ROM	£10
Wapping Art Disk	£2
Wapping Fonts Disk	£2
BBC Office Mate	£5
CC InterChart ROM	£20
BBC Dumpout 3 ROM	£5
Concept Kids	£5

CHRISTMAS HANDS-ON OPEN DAY – 26TH NOVEMBER 1995



Carriage Charges	1st	Add
Hardware	£8.00	£5.00
Software	£6.00	£4.00
Lasers/Monitors	£9.00	£5.00
Small Items	£6.00	£3.00

Offers and all items are subject to availability. Prices may have to change for reasons beyond our control. Specifications on all products are correct at time of going to press and given in good faith, but may have to change without notice. Please check suitability of items before ordering as returns will not be accepted without a handling charge. Goods are sold subject to our standard terms and conditions of sale and are available on request. Goods are not sold on trial basis. E&OE.

Watford Electronics Ltd

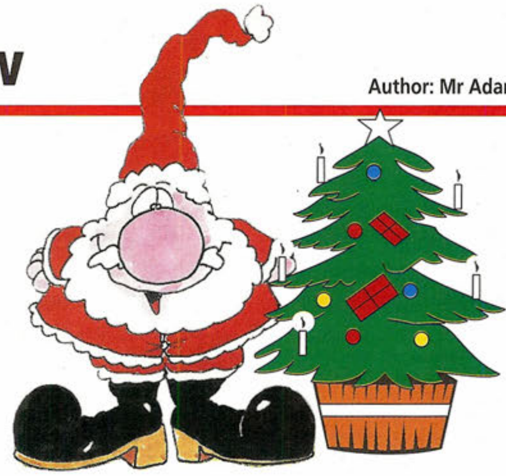
Mail Order & Showroom:
Jessa House, 1 Finway, Dallow Road, Luton LU1 1TR Tel: 01582 745555 (Sales) Fax: 01582 488588
Showroom only:
Jessa House, 250 Lower High Street, Watford WD1 2AN Tel: 01923 237774 Fax: 01923 233642

*info

Dave Lawrence and Dave Acton present more programs, tips and techie trivia from beyond the PRM.

See amid(i) the winter snow

Author: Mr Adamson



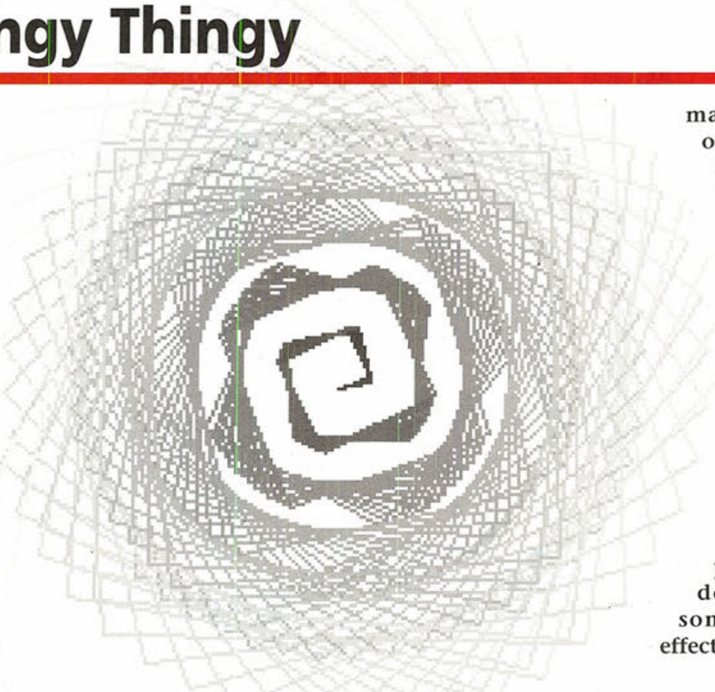
We do apologise for the appalling 'MIDI' puns over the last couple of months; we promise to try a little harder next time, especially as Mr Adamson has threatened to move us next to Stinky Gordon in double French next week.

This is the first of two instalments of 'that-time-of-year' music. I'm sorry but I can't bring myself to use the C word, as it's only mid-October as I write this! Here then are six C... C... C... ...tunes in Midi format – throw another log (a natural one of course) on the fire, gather around the Roland and join in if you like.

As the files are in MIDI format, you'll need a MIDI interface to hear them in their full glory, although *Rhapsody 3* from Clares will play them in the Desktop.

Spinny Stringy Thingy

Author: Mark Adcock



The author of this short doodle is quite adamant that Stringy Thingy is not his name. Well, he's quite right because he's signed the letter Mark Adcock. We hope that sorts that out for you Mark. The program *ST* had us fooled for quite a while as you run it and nothing much seems to be happening. To get things moving tap < or > to make the greyscale line start to rotate slowly. More taps will speed it up, tapping the other key will slow it down and ultimately make the line rotate in the other direction. As it rotates it leaves a trail behind it which in the short term builds up quite an interesting pattern. Pressing (and holding) the Shift key inserts a clear screen command into the plotter and will show you just the rotating line. Alternatively, hold down Ctrl to make the program leave the trail on the screen for a short period of time. As the time period is calculated randomly this can produce some strikingly different effects.

"At last someone who listens to the home user! All the best for your company's future. I will be recommending Aspex to others"

Mrs Pauline Johnson, Derbyshire.

"The truly honest question I had to ask when preparing this review was just where would I start to tell you about this genius piece of software from Aspex. It is completely and utterly brilliant!"

From a twenty page review of ArchiTech by John Hughes, a Technology Teacher from Fraserburgh. The review in Online Magazine is followed up with lots of ArchiTech 'workshops'.

"Spex is one of the best design packages available for primary and lower secondary schools. It is simply a must."

Archimedes World - Jul 94

Used by schools colleges and individuals world wide, our highly praised, intuitive 3D design and technology software gives real value fulfilling real needs.

ArchiTech is a '3D Concept Modelling Package' with fast full colour rendering. Sophisticated in it's programming, yet surprisingly easy to understand and use, ArchiTech turns your computer into a very capable design tool. Cola cans to kitchens, sky scrapers to space stations - design them all with Architech. (KS 2,3&4)

Spex was originally designed for the classroom, but has become so popular that there is now a home user version available. Fun, versatile and simple to use, this '3D Environmental Design Package' gives youngsters the chance to get to grips with the computer as a design tool. You select and place objects in 2D plan view on the screen, and view your environment in 3D isometric form. Plans can be printed, and the software supports add-on modules in the form of more environments to design. including Moonbase, Street, Leisure Pool and Primary Classroom. (KS 1,2&3)

Please call for pricing and further information on our products.

See us on Stand 70 at Acorn World

Telephone 01822 611060

Facsimile 01822 611061

ASPEX SOFTWARE

Heather House
Down Road
Tavistock
Devon
PL19 9AG

DRAW_Changer V2

The Draw File Effects Processor

New - produces 15/24 bit dithered sprites from Draw files
Globally change Draw red to pure red or any other colour
Globally thicken *just* thin lines - plus much more

for Acorn RISC OS 3 machines **New Low Price** **£25.85**

Impression Publisher Resource Disc £12.95

Packed with compressed resources for users of Impression Publisher.

- Backgrounds - for posters, business cards etc
- Masks - an extended range of masks
- Fancy Borders - includes selection of complex certificate borders
- Helpfiles - extended and updated for Publisher
- Publisher borders that utilise the unique border system
- Forms - ready produced for Avery labels, invoices, business cards etc ..... plus lots more.

with FREE BOXI font worth £8.17

Impression Style Resource Disc 2 £12.95

As above except the help files are written for Impression Style

The Primary Teachers Clipart Starter Set £16.45

A two disc set of Draw files for use across the KS 2 curriculum.

World War One - The Western Front £23.50

A ClearView KS 3 ready to run multi-media and clip art resource. 3 discs.

The Party, Wedding & Anniversary Clip Art Collection 2 discs for £16.45

A must for invitations, menus, greeting cards, place names, birthdays, Halloween, GuyFawkes and more.

Parish Magazine Collection £19.95

3 discs of clip art, 1 of KJ AV New Testament

Phone for Free brochure of clipart and multi-media resources

All prices include VAT - Add £1 postage to all orders

World Wide Web Brochure now at - http://www.zynet.co.uk/decdata/

DEC_dATA

Access VISA

Sales Hotline

Dep AU12, PO Box 97, Exeter, EX4 4YA Phone/Fax 01392 221702

Australia - KidsRam 241 Hawkesbury Road, Winmalee, 2777 NSW Phone 047 544 344

ViVID20

hi-res emulator for older machines

- Desktops up to 2048x1234* in 16 colour
- 1600x1200* 16 colour at 62hz
- 1472x1070* 256 colour
- Greyscale versions of all modes
- Enhanced dithering in 2bpp modes
- On screen brightness & contrast controls
- Colour calibration in 16 colour modes
- Supports 77 different screen modes
- Requires Arm250 or higher, Risc OS 3.1, VIDC enhancer and multisync colour monitor

* quoted resolution figure is emulated

£11.50

XStitch

cross stitch design for Acorn computers

- Designs from 2, 4, 16 & 256 colour sprites
- Converts sprite colours to Anchor Colours
- Print direct or output as a draw file
- Supplied with hinted XStitch symbol font
- Up to 250,000 stitches per design
- Uses up to 64 colours in any design
- Automatically tiles large designs on printing
- Calculates finished size of design in inches
- Support for 12, 14, 18 & 22 hpi material
- Full reference sheets with colours & symbols

£21.50

TableCalc

spreadsheet and table generator

- Sheet size only limited by memory
- OLE links with Impression
- Insert & delete columns or rows/copy slots
- Sophisticated expression editor
- Save as Draw and CSV files
- Buton bar with all functions
- Interactive help/runs on 1Mb machines

£31.50

Acorn User Awards 1995 Runner up best business software

Fonts

Over 550 Risc OS 3 Outline Fonts

- Full latin 1 character sets including Welsh
- Fully Scaffolded with kerning pairs
- Installer for EasyFont, FontDIR & !Fonts
- Serif, SansSerif, Script, Decorative & Gothic
- Risc OS 3.1 or later & Hard Disk required
- Full samples available in our catalogue
- High quality at a low price

£36.50

All prices include UK carriage
Overseas orders please add £2.00

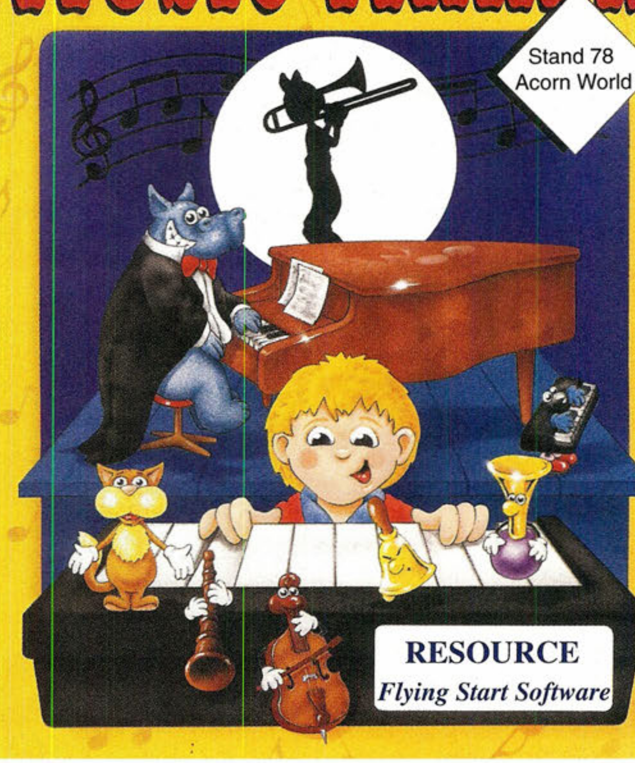
86 Turnberry, Home Farm
Bracknell Berks RG12 8ZH
Tel 01344 55769

iSV Products

Demo disk & catalogue £2.00

MUSIC MAKER

Stand 78
Acorn World



RESOURCE
Flying Start Software

RESOURCE 51 High Street Kegworth Derby DE74 2DA
tel 01509 672222

A Pinch of Salt

Author: Darren Salt

Long standing *INFO contributor Darren Salt has a little utility for us to cut down the old finger work. The module *SetAlias* makes the task of setting aliased commands and filetypes easier to remember and shorter to type. Eleven commands are provided:

```
*Alias <cmd name> <action>
*UnAlias <cmd name>
*FileType <number> <name>
*LoadType <number> <action>
*RunType <number> <action>
*PrintType <number> <action>
*SetDir <name> <dir>
*SetPath <name> <path>
*UnsetDir <name> <dir>
*UnsetPath <name> <path>
```

These provide quick access to the sometimes difficult to remember sequence of characters needed to set (or unset) the relevant system variables. For example *RunType actually performs:

```
*Set Alias$@RunType_<number>
<action>
```

One additional command is also provided:

```
*X <*command>
```

This is perhaps the most useful of the lot and executes a * command but does not return any error generated by the command.

You might be interested to know that you could, in fact, do all of the above (except for *X) simply with aliased commands. For example to give *Alias and *UnAlias you'd have to use:

```
*Set Alias$Alias Set Alias$%0 %*1
*Set Alias$UnAlias Unset Alias$%0
```

Of course, once you'd typed the first one you could set the second one with your newly created *Alias command!

Arfle barfle gloop?

If this is all Greek to you and you've never heard of aliases and system variables, read on for the two-minute lesson.

Aliased commands are an incredibly useful way of extending the functionality of the OS without having to resort to writing machine code and modules. For a simple example, say you wanted to add the command 'ls' to be like the UNIX command to catalogue a directory. In RISC OS you'd type cat (which can also be abbreviated to a full stop). To do this at a very basic level you could use the aliasing system as follows:

```
*Set Alias$ls cat
```

This sets the system variable Alias$ls to contain the string 'cat'. System variables beginning with Alias$ are taken to mean new OS-like commands, in this case the command ls. The value of the command (the string 'cat') is executed if the user types the command – try it now.

The first problem with this comes when you try to catalogue a directory other than the current one. Unless you typed a space after the 'cat' you will be given a nasty error message if you try a command like ls subdir. To get round this we need to add a parameter to the command, using the % notation as follows:

```
*Set Alias$ls cat %*0
```

Any parameters given after ls are numbered 0 to 9. They can be substituted into the command executed by referring to them as %0 to %9. In the above example there is an extra star between the % and the 0, which means all the parameters from 0 onwards. (In fact this is superfluous here as cat only takes one argument.)

To make this example a little more interesting, suppose you wanted to be able to type ls .. to catalogue the directory *above* the current one, in the same way UNIX does; this can be achieved with:

```
*Set Alias$ls If "%0" = ".." Then
cat ^ Else cat %0
```

The if statement checks if the first argument is .. and if so issues the RISC OS runes to catalogue the parent directory as a special case, otherwise the standard cat command is issued.

It is also possible to modify the function of existing commands. Suppose you always wanted *cat to list the full information on files like *ex, you can simply alias cat:

```
*Set Alias$cat ex %0
```

If you still want to use the original cat command you can type %cat to bypass the aliasing system. So to add a different command to perform the original cat command you'd use:

```
*Set Alias$Files %cat %0
```

Can you guess what would happen if you missed out that extra %?

Once you've had enough of your command you can remove it by simply deleting the system variable:

```
*Unset Alias$ls
```

This is only a taster of what the aliasing system can do, with a little thought and a little ingenuity it is possible to do all sorts of things without having to crank out some code.

The emulation game

Author: Michael Borcherds (from an original program by Richard Averill)

This is an update from a program published way back in June 1989 – two years before the birth of *INFO! In those days, your monthly dose of ARM doodling came under the banner of Arc Agora (Archimedes Forum being a historical *faux pas* as The Man Himself was a Greek).

Six years ago, Richard Averill presented a module that, as far as we can remember, allowed the mouse to be used as a joystick and read with the BASIC function ADVAL. The update (*Joystick95* if you will) appears courtesy of Michael Borcherds; he has rechristened the module *Joystick* and most importantly made it compatible with the Acorn joystick SWI as provided in RISC OS 3. Unless you have a A3010, this module will be dormant on your machine. On an A3010, it can be used to read the state of a digital or analogue joystick plugged into the machine's joystick port. The interface to the module is fully documented in the PRM and thus allows third parties to write replacement modules for different joystick hardware or even different positioning devices such as a light pen, touch screen, graphics tablet etc. Programs using the approved SWI will then work with the new hardware with no modification.

Richard's module reads the mouse position and returns positional information in either digital or analogue form, selectable with a *command. The right-hand button (Adjust) is treated as the fire button. A simple test program *JoyTest* can be used to see the difference between digital and analogue; holding the fire button down will leave a trail behind the pointer in analogue mode but at only one of nine positions in digital mode.

Through the mangle

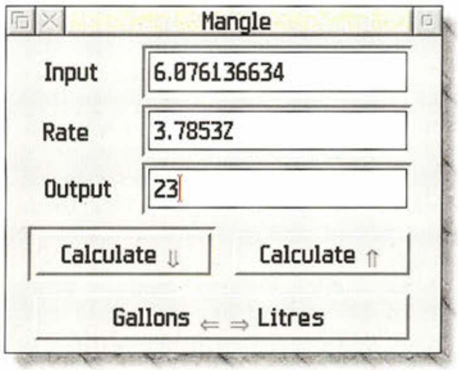
Author: Andrew Markwick

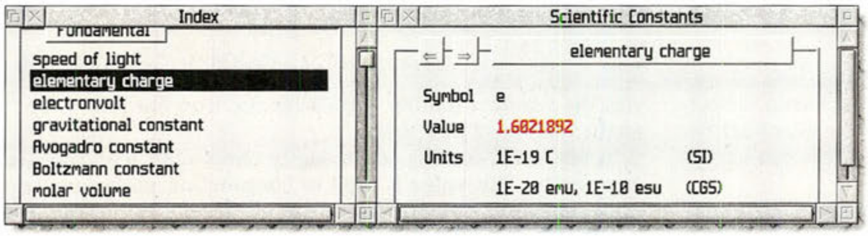
A mathematical utility from Andrew Markwick next, *Mangle* converts numbers between inches and centimetres, tons and kilogrammes, grains and scruples, to name but a few. It is also fully expandable, so if the conversion you require is not among the 98 it already knows, then you can teach it. Of course, it's not the calculation that's tricky, it's knowing that magic constant. Unfortunately the conversion is strictly performed on ratios, so it cannot translate centigrade to Fahrenheit.

To use, first select the conversion you require. Bring up the main menu and select the main category – this will fill in the first translation available in the title box in the middle of the window. Clicking this with Select and Adjust will cycle through the available conversions. Now type in your source figure: if you're going from left to right then enter the number in the input box, if translating 'backwards' type the number in the output box. The conversion can then be performed by clicking on the appropriate calculate button, the answer will be calculated and inserted into the other box.

User options can be added by toggling the window to full size and adding them in the extra icons at the bottom – make sure you enter a rate and a name. These options will appear on the main menu in the 'user' section. User options can also be deleted from here.

As an accompanying program to *Mangle*, Andrew has also written *Constant*. This knows 157 mathematical, physical and chemical constants and their units – everything from the





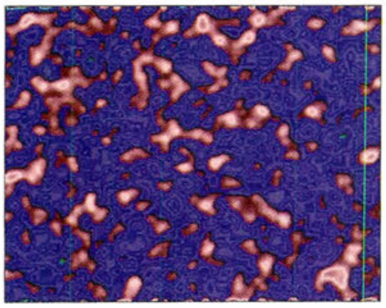
fluxoid quantum to the permittivity of a vacuum. As with *Mangle*, you can use the main category menu to find your constant or probably more easily the scrolling index which shows all the constant names. A simple search facility is also provided, but you have to know the exact name of the constant including the case, so remember it's Avogadro not avogadro...

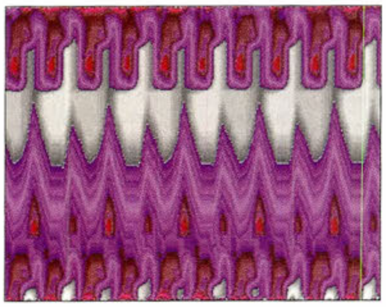
Terra-vision

Author: Daniel Patel

A trio of graphical ditties now from the plasma school of art. They come courtesy of Daniel Patel who is, we believe, our first Norwegian contributor.

The idea behind the demos is quite simple. A smoothing rule is applied to each pixel of a 'hidden' screen and the results plotted on the screen proper. The rule in this case consists of averaging the values above, below and to the sides of each pixel.

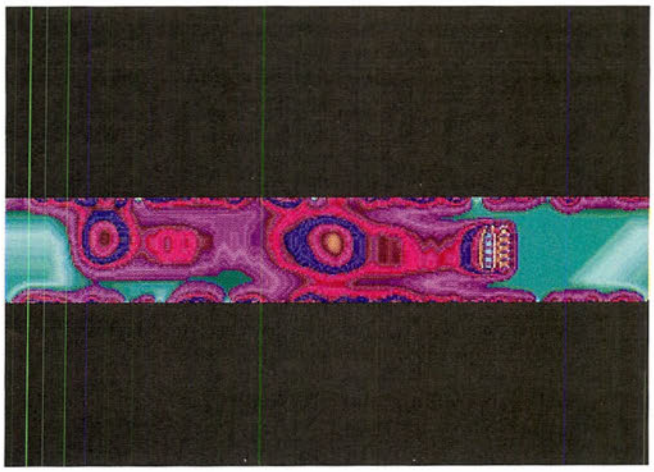




A short bit of BASIC sets up the colour tables which are used to enhance the effect. Random colour changes are chosen each time the program is run. Having decided which colours are going to change into what, a short piece of BASIC is used to 'in-between' the hues and generate a lookup table.

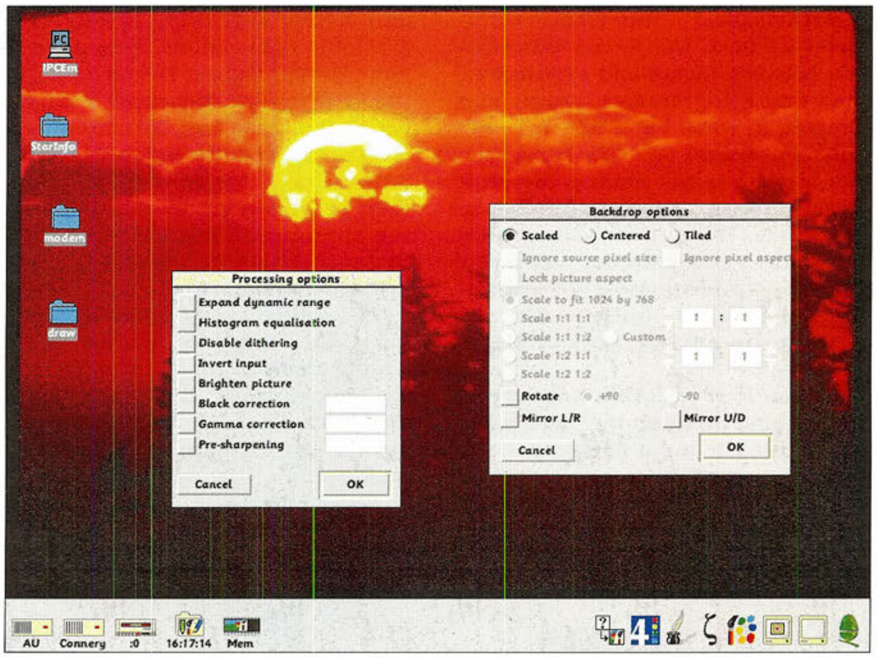
TerrArt is the base program. The screen is randomised to begin with. Soon, coloured patches emerge from the mire and swirl about as only coloured patches can. Eventually the patterns dissolve (quit the program at this point, as nothing else is going to happen). *TerrArt2* begins with a different screen setup, which leads to a pleasant (or indeed, unpleasant) dripping effect.

Finally, *DrawArt* is the interactive version. The screen has become a narrow strip, for speed purposes we assume. Move the mouse and stir that plasma. You will see from the program that &FFs are simply inserted into the 'hidden' screen around the location of the pointer. If you have ever waved a hot potato waffle in front of a thermal imaging camera, you may have seen something like this before. If not, you haven't lived.



Better backdrops

Author: TR Tanner



Smarten up your desktop with this easy-to-use backdrop processor from Mr T R Tanner of Wiltshire. He has written an interface to the *ChangeFSI* utility which allows you to convert more or less any image directly into a backdrop.

Once *GenBackDr* is installed, just drag the image file onto the icon and wait while it is processed. You can control how the image is processed by selecting the Processing option from the menu. A window will be opened providing similar options to *ChangeFSI* itself. Tick those required and click on OK to reprocess the image.

Select Scaling from the menu to bring up another window. Here you can choose whether the backdrop sprite is to be scaled, centred or tiled. In the case of the latter two, you can control how the image is to be scaled. There are also options to reflect and rotate the picture. Again, these facilities correspond to those provided by *ChangeFSI*.

Finally, when you are happy with your backdrop, select Save from the menu. It will be saved in the *!GenBackDr* directory. When the application is reloaded, the backdrop will be reloaded.

The author points out that only images *ChangeFSI* can cope with are suitable, since it is *ChangeFSI* that does all the work. Also, Interactive help and Desktop save are supported by *GenBackDr*.

Icons aside

You may notice that the *!GenBackDr* icon installs next to the Display Manager. In case you were wondering how to do this, it is a simple extension to the Wimp_CreateIcon call in RISC OS 3. In RISC OS 2, this SWI was called with R1 pointing to a block describing the icon. The first word of the block was the window handle, which for the icon bar had to be -1 (right side) or -2 (left side).

In RISC OS 3, R0 may additionally contain an icon number or priority. This value is used in conjunction with new 'special' window handles of -3 to -8. There meanings are summarised in table 1.

It is recommended these days that you use codes -5 to -8 if you want to put your icon in a special place. In this case, R0 contains a priority. Where it appears on the icon bar depends on the priorities of other icons. Table 2 shows the priorities of the most important standard icons. So for example, to place an icon just left of the Display Manager, use a window handle of -8 and a priority of, say &58000000. Always choose values appropriately so your icon is in good company.

Table 1 – possible 'window' handles for creating icons on the icon bar

- -3 create icon to left of icon R0
- -4 create icon to right of icon R0
- -5 create icon on left side, scanning from left
- -6 create icon on left side, scanning from right
- -7 create icon on right side, scanning from left
- -8 create icon on right side, scanning from right

Table 2 – major icon bar priorities

Task Manager	&60000000	'Apps' icon	&50000000
Help	&40000000	RAM disc	&40000000
Palette Utility	&20000000	Ethernet	&30000000
Applications	0	Econet	&20000000
ADFS hard discs	&70000000	Other FSs	&10000000
ADFS floppies	&60000000	Printer drivers	&0F000000

*QUIT

All submissions most welcome. Send to:

*INFO, *Acorn User*, IDG Media, Media House, Adlington Park, Macclesfield SK10 4NP

or e-mail us at: starinfo@acornusr.demon.co.uk

You needn't include a letter but do please put your name, address and program title on every disc and include a text file containing at least your name, address and disc contents. An SAE will ensure your discs are returned and any other instructions, diagrams, saved screens etc are also gratefully received. And if you e-mail us, please include your 'real' address too!

Compatibility table

All the *INFO programs except *GenBackDr* and *3DSurf* work on all versions of RISC OS; the two exceptions don't work on RISC OS 2. With *3DSurf* this *may* be a memory problem, as our RISC OS 2 A310 only has 1Mb in it, so if you have a machine with more memory it's worth a try.

Free Ads

• Library cataloguing. Acorn or PC versions. Search cross reference, subject, topic, Dewey, author, colour code. Print and statistics. SAE details. Dorridge Infant School, Solihull B93 8EU.

• Many Micro Users and BBC Acorn Users 1986-1993 with subscription discs. Also Masterbreak, £10, Interdictor, £5. Call for magazine list. (01225) 762984.

• BBC Master, Torch 280 double drive disc pack, Sanyo RGB monitor, 14", with 'Perfect' software. £300 ono. Tel: 01904 470698.

• Acorn A3000 2Mb RISC OS 3, CD-ROM + titles, Style, Impression, educational software, 80 games + pad. Boxed; £395. World War II CD £60. Tel: 0181-224 3616

• A3010 1Mb – good condition – many games including Saloon Cars Deluxe, Zool, Crystal Maze and many more – all apps discs included. Bargain! £300 ono. Tel: (01507) 607371.

• Wanted: Spare ARM II processor ICs. Would be greatly appreciated for use in student development project. Will pay. Tel: James on (01494) 726716.

• Magazines: Acorn User, January 1992 – January 1995. Archimedes World, November 1992 – January 1995, complete with cover discs. Offers. Tel: 01942 892700 evenings/weekends.

• Free BBC Master when you buy my Microvitec CUB monitor for £35. Call for details on (01846) 672130.

• Wanted. AMX mouse compatible BBC Master series micro computer. Nine pin D plug version 3.61. Tel: (01835) 862175.

• A3010 2Mb RAM, RISC OS 3.1, colour monitor, lots of games, Stunt Racer 2000, Speedball, Lemmings, Flashback, Chocks Away, Bodywise, etc. £425. Tel: (01732) 454707.

• Quick sale: A3000, no software, only scart lead available. Bargain at £100. Also Atari STFM 520, just computer, £50. Tel: 0181-501 0955.

• School computer clearout 3 x BBC B, 2 x masters, 5 x monitors, 3 x 5.25 drives, 1 x 3.5 drive, 1 x modem, £200 the lot. All SAS, Contact BSS Ltd on 0161-763 5767.

• BBC B Watford DFS. Worldwise+, Viewstore, Beebcalc, Disc drive, colour monitor. Excellent condition. 80+ discs (games, educational, languages). Many books, and more. Tel: Norman 0181-950 4973 (evenings).

• A3010 4Mb RAM, 120HD, CD ROM drive x 2 + PD CD1 + AU CD. Sound sampler + microphone. Wide range of software, £650. Tel: 0181-892 8744 (Twickenham area).

• Interested in PD and Budget Software? Especially symphony/tracker music? If so, phone Barnaby on (01489) 894521. Also, for sale: The Dungeon, £15 and Sound Sampler, £25.

• A3010 2Mb, RISC OS 3, Learning Curve, AKF50 monitor. Games incl. Crystal Maze. As new with manuals and boxes, £400. Tel: (01508) 494106.

• Acorn Desktop C Release 4, Original Disks, Manuals and packaging. £60. Tel: 0181-657 0128.

• Games! E-Type 2, Flashback, Birds of War and James Pond 2. £10 each. Tel: (01794) 514613 after 5pm.

• A4000, 2Mb RAM, 80HD, Monitor, Impression Junior, PC emulator, Easiwriter2, Database, 25Mb + lots of other software, leads, manuals, boxes etc. VGC. £650 ono. Tel: (01386) 750770.

• Risc PC CD-ROM drive, IDE interface, cables, software, immaculate, boxed, used once. £160 ono. Eureka v3 £50. Acorn User magazines, free to good home. Tel: (01633)894533.

• Colton's Wordz word processor plus manual. Genuine software. Excellent condition. Boxed. Bargain, £30 plus £2 postage. Tel: 0151-546 8955.

• Games for sale! Xenon 2 and Pandora's Box, £10 each. Guild of Thieves, £5. Tel: (01363) 772691.

• A4000 2Mb RAM, HD80 Multiscan monitor, Easiwriter, Desktop DB, PC emulator, v1.8, Quest for Gold, Hostages, Interdictor, £750. Tel: (01763) 231059 after 7pm.

• BBC B+ computer twin disc drive, dual 40/80T colour monitor, Manesmann printer, various ROMs. Software: serious educational and games, £100. Tel: 0151-677 1654.

• Acorn A5000, colourcard gold, 15" multisync monitor, 40Mb hard disc, 4Mb RAM. Perfect condition. Boxed with all manuals, £800 ono. Tel: (01389) 765560.

• 2400 baud network modem. Ideal for novices or clubs who don't want a modem for each computer. Complete with connections and software, £30 ono. Tel: (01977) 620702.

• A3000, 2Mb RAM, RISC OS 3.1, Serial port chips, Midi sound card, will accept £150 for quick sale. Tel: 01352 712937.

• Risc PC 600, colour monitor, 9Mb RAM, 210Mb HD, CD-ROM, 486 PC card, Publisher, Windows 3.1, MS DOS 6.0, other software and magazines, excellent condition. Nine months old. £1450. Tel: (01224) 824528.

• 2Mb upgrade for an Archimedes A3000. Perfect condition, £25 ono. Tel: Ian or Paul on (01855) 821228.

• Ultimate CD-ROM drive, dual speed, for the A3020 series. In excellent condition, £200. Tel: (01484) 684061.

• A3000, 2Mb RAM, new disc drive, joystick and interface card, software and games, Philips CM8833-11 monitor, Star LC24-200 printer, £600 ono. Tel: (01292) 268509.

• A3000 Learning Curve, 2Mb RAM, extra 3.5" drive complete with manuals and printer, £375. Tel: (01424) 830418 (evngs).

• 8Mb 33MHz A5000, 160Mb HD, 150Mb tape streamer, Impression Publisher, Manual etc. Call Ian on (01734) 661431 or e-mail ian@daffodif.demon.co.uk.

• A4000 Home Office for sale. 2Mb RAM, 80Mb HD, multiscan Monitor, RISC OS 3.1, TurboDriver, maintenance to Sep '96, £595 ono. Impression Style & Fireworkz available separately. Tel: Hampshire (01256) 52183 (evngs).

• ST 506 bare hard drive wanted urgently; 40 or 50Mb. Will pay up to £50. Cash waiting. Tel: (01407) 810184.

• EMR Studio 24 sequencer, SMPTE podule, Creations samples, A3000 – MIDI/user. Cost £500, want £150. (will split) Also A3000, 2 Mb upgrad, £25. Tel: Tim on Telford (0973) 305994.

• P.D. for sale. £1 per disc. Write for catalogue disc to:- 9 Rosedale Avenue, Chesterfield, Derbyshire S40 2UY.

• Archimedes Software for sale: Easiword, £9, Pinpoint database, £35, MasterFile 3, £24, desktop Thesaurus, £9, Logotron Logo, £27, Smart, £25, Glimpse, £5, Coffee, £7, Sim City, £12, Quest for Gold, £9, VoxBox, £19. All prices include postage & packing. Tel: (Welwyn Garden City) (01707) 324804.

• Microlin FX 9600bps pocket modem inc leads, AC adaptor, £60. Tel: 0161-973 0776.

• Acorn User back issues: September 1982 (issue 2) to September 1987 in binders. October 1987 to May 1988 unbound. £50 ono. Details on (01753) 543805.

• A5000, 4Mb RAM, 40Mb HD, 1.6Mb FD, 14in multiscan monitor, Ovation, Schema, DTO, Genesis, etc, manuals £700. BJ330 A3 printer, £250. Tel: Peter (01424) 445010.

• A3000 microcomputer system (2 Mb RAM, 60Mb internal HD, RISC OS 3.10, serial upgrade), AKF12 colour monitor, manuals, discs, 120 games, £400. Tel: Andrew (01484) 861960.

• Acorn 3010 2Mb, loads of discs, six months old, lots of games including Premier Manager, Quest of Gold, Easiword, all boxed. Cost £800 will accept £200. Tel: Wayne on (01708) 701712 after 5pm.

• A310 with ARM3, RISC OS 3.11, 4Mb RAM, 260Mb IDE Hard disc, 2nd floppy drive, colour monitor and printer, £600 ono. Tel: Tom on 0151-652 5833.

• Offers are invited for the purchase of the following magazines, all in perfect condition: BBC Micro User/Acorn Computing – Issue No 1 March 1983 to September 1994, complete. Risc User – November 1988 to March 1994, complete. Tel: Woking (01483) 763756.

• Wanted: A5000 4Mb, also Impression Publisher and Artworks. Tel: (01482) 376413.

• A3000 2Mb, colour monitor, Star LC200 colour printer, much software, all v.g.c. With all manuals, £400. Will seperate. Tel: 0181-248 6816.

• A5000, 4Mb RAM, 125 MB HD, multisync monitor, PC emulator, Genesis Plus, games, manuals, can demo and possibly deliver, £700. Tel: (01543) 491867.

• A3000 colour monitor, RAM upgrade, 9-pin printer, software: PC emulator, Pipedream. All leads and manuals. Cost over £1300, sell for £300. Cardiff (01222) 613355.

• Acorn A3000 2Mb, colour monitor, with MIDI interface and serial upgrade. Good condition, £300. Also Dune II, £15 and E-Type2, £10. Tel: (01798) 812436.

• For sale! 100 5.25in double-density disks £10 incl. p&p labels without disc sleeves. Tel: Matthew on 0181-524 4326.

• Multi I/O Board from Leading Edge for A3000 with RISC OS 3. Comprises HD floppy drive 85Mb hard drive. Cost, £513. Sell for £250 ono. Tel: (01695) 573715.

• BBC bits – shadow RAM (RRP £54), £27; sideways ROM/RAM board w/b.backup (RRP £65), £32; mouse w/Quest Paint & mat (RRP £40), £20; Viewsheet, £3; Toolkit, £4; books, and software 50p each. All have instructions. Details: (01625) 431067.

• Acorn 3010, 2Mb, excellent condition, 6 months old, lots of games including Premier Manager, Quest of Gold, EasiWord, all boxed. Cost £800, will accept £200. Tel: (01708) 701712.

• Risc PC 600, AKF60, 8Mb RAM, 2Mb VRAM, CD-ROM, £1800 ono. Compo, £90, Rephorm, £30, Wordz, £40, Personal Accounts, £35, Graph Box Pro, £60, Simon The Sorcerer, £15, Crystal Maze, £15. Tel: 01734 575952.

• Cumana Bravo SLCD CD-ROM drive for sale. Fits A5000. Complete with speakers and four CD-ROM titles, unwanted gift, £250 ono. Tel: (01279) 724339.

• A5000 4Mb, 256Mb HD FPA, 14in colour monitor, 486 card, 2 digitisers, Analogue port, sound sampler, 2 serial MIDI card, CD-ROM, manuals, SolidTools, Euclid + 100s of software titles, £2000. Tel: Ipswich (01473) 602283.

• A310, colour monitor and software, £160 ono. Tel: (01463) 831658.

• A5000, 4Mb RAM, 80Mb HD, AKF 50 monitor, £700. Tel: 0131-447 8624.

• Wanted! Any emulators for the Archimedes. Send lists to: Matthew, 19 Garfield Road, North Chingford, London E4 7DG or phone on 0181-524 4326.

• Interested in Acorn Computers? Then phone Rob on 0121-766 7290. Discuss what you can do. Help to build and establish an enthusiastic club in Birmingham.

• A3010 2Mb, joystick, speakers + various disks (games + serious). Also Panasonic colour printer with box, manuals etc, £350 ono. Tel: (01282) 867921 after 6pm.

• Acorn Electron 32K Pres 3.5in drive view and viewsheets also logo cartridges. 9-pin printer, joystick, books, disks, scart leads etc., £85 ono. Tel: (01203) 503383.

SOFTWARE SHOWCASE

BUDGET GAMES

MULTIMEDIA

BUREAU

GRAPHICS

UTILITIES

BUSINESS SOFTWARE

GRAPHICS

DEALER

HARDWARE

• Master 128. Turbo co-processor. Viewstore, Pascal, Dumpout 3 and ADT ROMs. 40/80 switchable twin drive. Colour monitor, Digimouse, Manuals, books, software, etc., £250. Tel: (01233) 812250.

• Watford Electronics 2Mb Memory Upgrade for A3000. As new, boxed, tested, easy to fit, £25 ono. Tel: (01625) 431349.

• A5000 4Mb fast RAM, 100Mb HD, Eizo 9060S multiscan monitor, Acorn 1/0 + MIDI interface £850 ono. HP 500C colour printer, £200 ono. Tel: (01525) 237625.

• A410 4Mb RISC OS 3, games and applications including Wordz, Taxan dot-matrix printer user guides and manuals. Excellent condition, professionally serviced, £400. Tel: (01832) 226351.

• Scanlight 256 with card. £95. Tel: Surrey 0181-647 0668.

• A3000 2Mb RAM Philips monitor LX400 printer £450. A3000 2Mb RAM Acorn monitor LX400 printer, £450. Tel: (01773) 872927.

• A5000 with monitor, hard disc, 160Mb, 4Mb RAM, CC Hand Scanner 256, software (lots). Cost £700. Morley CD-ROM drive, £100. Tel: (01242) 672985 (evngs only).

• A3000, 2Mb, serial/MIDI port, Acorn colour monitor, ERM Studio 24, Pipedream, SolidCad, Film maker, PC emulator, manuals, £300. Panasonic KX-P1081 Printer £50. All good condition. Tel: 0151-678 1074 (evngs)

• Boxed 4Mb A4000, RISC OS 3.11, double speed CD-ROM, 80Mb HD, Multiscan + software + manuals. £800. Elements CD-ROM, £75 (RRP135), Font Director £10, Investigator III, £20, CC Turbo driver HP £25, £10 each: SWIV, Virtual golf, Lotus II. All boxed. Tel: (01695) 421902.

• Games for sale including Battle Chess, Magic Pockets, Neuryon, SWIV, Chuck, Rock, Gods, Carnage inc, Zool, Xenonz and lots more, £10 each. Tel: (01529) 306590.

• A5000, 4Mb, 80Mb HD, RISC OS 3.1, Multiscan monitor software. Tel: (01822) 616371.

ACORNUSER guide to local dealers

SURREY

Calancraft Ltd.

THE COMPLETE ACORN DEALER

EDUCATION AGENCY

- Showroom open 9.00 - 5.30 six days and to 8.00 on Thursday.
- Acorn range on display, and full demonstrations given.
- Lots of programs, games and education software for you to try.
- Full service and repair facilities.
- Acorn Approved Education Agent, Network Dealer and Training Centre.

"Very helpful people"

with a 12 year long reputation for exceptional service and support.

Easy parking.

96 High Road, Byfleet,
Surrey KT14 7QT

Tel: (01932) 342137 Fax: (01932) 336435

DERBYSHIRE

0% FINANCE SCHEME
ACORN ASSIST FINANCE SCHEMES
COLOUR & MONO PRINTING
CD-ROM DRIVES
HARD DISC DRIVES
MEMORY UPGRADES
MODEMS
PRACTICAL ADVICE
PRINTERS
REPAIRS
SCANNERS
SCANNING SERVICE
SOFTWARE
SPARES
TUITION
TELEPHONE HOT LINE

Acorns at Selective

Acorn Approved Dealership

Telephone 01332 690691
Facsimile 01332 690691

Selective Computer Services - 8 Old Gate Avenue - Weston on Trent - Derby - DE72 2BZ

WEST YORKSHIRE

THE CHOICE OF EXPERIENCE

MARTYN DAVYN

Davyn Computer Services

Printers, Ribbons, Ink Cartridges, Refills
Expert Advice & After Sales Service
***Mail Order** Master Card, Visa, Switch*
Ring for Prices
Service & Repair to all Equipment
Full Range of Acorn Hardware & Software
(We operate the Acorn Finance Schemes)
Full Range of Educational Software in Stock & on Demo

Tel. 01924 254800
Fax. 01924 258036

For the best service in Yorkshire (we think)

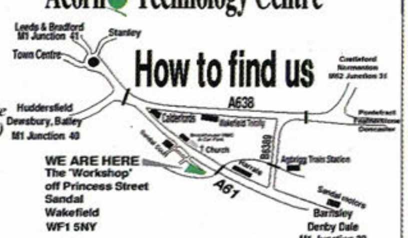
CALL US! for A3010, A3020, A4000, A7000, RiscPC, A4 Portable & Pocket Book

Visit our Showroom

Open 9.30 to 5.30 Mon, Tues, Weds, Sat. 9.30 to 7.30 Thurs & Fri.

Acorn Technology Centre

How to find us



Acorn Pocket Book · RISC PC · hp HEWLETT PACKARD · CITIZEN · Canon

WEST MIDLANDS

MAUDENS

"Millside", 133 High Street,
Wollaston, Stourbridge,
West Midlands, DY8 4NZ.

CENTRE STAGE WITH RADDISSON EDWARDIAN

We have been supplying education establishments for 15 years

- Acorn Authorised Service Centre
- Authorised Microsoft re-seller
- FREE Bottle of Champagne with every machine purchased PLUS 15% Discount on Centre Stage Theatre Breaks
- MAIL ORDER - It is our policy to match most prices on offer

With 15 years of service you can't go wrong with Maudens

Tel: (01384) 444433 / 833300. Fax: (01384) 441655

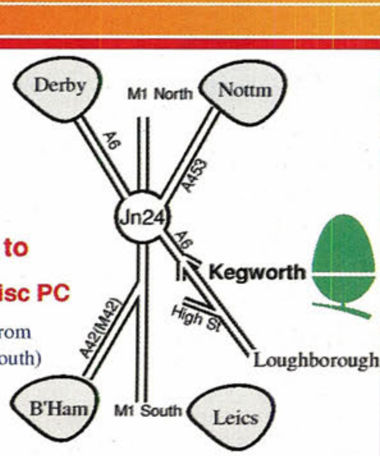
DERBYSHIRE

KEYBOARD TECHNOLOGY

ACORN Education Dealer
ACORN Network Dealer
ACORN Special Needs Centre

0% finance or up to £150 cashback on Risc PC

Visit our Showroom just ½ mile from M1 junction24 (2nd right on A6 south)



Keyboard Technology Ltd
51 High Street Kegworth
Derby DE74 2DA
Tel 01509 672222

Open Mon to Fri 9.00 - 6.00pm
Saturday 9.00 - 5.00pm

CUMBRIA

Acorn Education Agency

Cumbria Software Systems

Specialist Acorn Dealer

Risc PC700, A7000

Sales, Repairs, Software, Peripherals

Network design and installation
Ethernet, Nexus ATM, Multi-platform networks

Semerc Authorised Dealer

CSS Ltd., Unit 3A, Townfoot Industrial Estate
Brampton, Cumbria, CA8 1SW

Tel: 016977 3779

ACORN USER

ADVERTISERS INDEX

Fantastic NEW FREE gifts

when you subscribe to ACORN USER

Choose any one of these excellent free gifts or special offers when you subscribe to the most established, informative Acorn magazine in the world, each and every month.

Subscribing takes out the hassle of trekking down to the newsagents each month as every issue is delivered to your door, postage free. You're also protected against any cover price rises that may take place over the duration of your subscription.

The best way to subscribe is by continuous quarterly direct debit, where you can spread the cost with a small payment each quarter, rather than paying one lump sum in advance. Plus – you can forget about the worry of your subscription ever lapsing, as it runs until you are ready to cancel.

PIPEDREAM 4

Only £5

PIPEDREAM 4
SAVE £80

Ideal for any Acorn machine with 2Mb RAM. Includes a flexible word processor, powerful spreadsheet package, charts and a fast and compact database.

BINDER & TWO FREE MAGAZINES

Exclusive to Acorn User this binder will hold up to 13 issues of your favourite magazine. PLUS receive an extra two magazines absolutely FREE!



FREE

£50 HOLIDAY VOUCHER

Acorn User gives you £50 off your next holiday abroad!



Offer entitles recipient to £50 reduction on most ABTA tour operators' brochures when booked with Xpert travel Limited. Valid for minimum two people, seven days holiday overseas. Further information available on request. Only available for UK residents

SUBSCRIPTIONS

Priority subscriptions form

1a ✓ **YES!** Please enrol me for the following 13 issue subscription to Acorn User NOW!

See section 2.

4201 ☐ UK £37.99 *4202* ☐ EU £53.99 *4203* ☐ World £68.99*

*Unfortunately World subscribers are not eligible to receive the free gift/special offer

I would like to pay by:

☐ Cheque/postal order made payable to IDG Media

☐ Credit card (Visa/Access/Barclaycard/Mastercard/Eurocard/Connect)

Expiry date ☐ /

Card No. ☐☐☐☐ ☐☐☐☐ ☐☐☐☐ ☐☐☐☐

1b Please enrol me as a subscriber to *Acorn User*.

4210 ☐ with payments of £9.49 by continuous quarterly direct debit

See section 2.

Your subscription will continue until you cancel. Over a year you will receive 13 issues.

Name of Bank/Building Society ....

Address ....

....

Name of Account ....

Your Account No. ....Sort Code ....

Date ....Signature(s)..........

Your instructions to the bank/building society: I instruct you to pay direct debits from my account at the request of IDG Media. The amounts are variable and may be debited on various dates. No acknowledgement required.

I understand that IDG Media may change the amounts and dates only after giving me prior notice. I will inform the bank/building society in writing if I wish to cancel this instruction. I understand that if any direct debit is paid which breaks the terms of the instruction, the bank/ building society will make a refund. Bank/building society may decline to accept instructions to pay direct debit from some types of accounts.

FOR OFFICE USE ONLY
Originator's ID No. 851412

Ref No. ....

2 Please send me the following FREE Gift/Special Offer (tick one):

4204 ☐	Pipedream 4	Only £5		
4205 ☐	Binder and two magazines	FREE		
4206 ☐	Starfighter 3000	FREE		
4207 ☐	Publish Art	Only £10		
4208 ☐	Acorn User Gift Pack	FREE		
4209 ☐	£50 holiday voucher	FREE		

For the gift pack please specify whether you require High or Low density discs (delete as appropriate)

● Please remember to either add the appropriate amount when you write your cheque or if paying by direct debit, please send additional payment

All subscriptions will commence with the next available issue.
This offer can not be used in conjunction with any other subscription offer.

3 Name ....

Address ....

....

Postcode ....Tel..........

4 Now send your completed form and payment to Acorn User, Database Direct, FREEPOST, South Wirral L65 3EB. Tel: 0151-357 1275. Please state if credit card billing address is different from the delivery address. Photocopies or handwritten versions of the above information are acceptable.

IDG Media offers you the chance to receive information about other organisations' goods and services, please tick the box if you prefer not to take advantage of this. ☐





REGAN

The Moxon Interview

Mark Moxon

> There are more important things to do in pubs than discuss RISC OS.

It's a beautiful summer's day, and my interviewee is sunning himself on the roof of the pub he works in. There's Blur on the stereo, garden gnomes in the bar downstairs, and the only noticeable link to computers is the Pocket Book II casually laid among the fashionable newspapers and magazines. The sun-lover is Mark Moxon, ex-editor of *Acorn User,* and this classic London pub is where Acorn User has been run from for the past nine months.

Being an editor of *Acorn User* is one of those jobs with a rather unclear career path; it's a bit hard to see the rookie Acorn User editor serving his time as a stringer on a provincial Acorn computer magazine in Aberdeen.

'I was in the right place at the right time,' smiles Mark modestly. 'I was doing Maths and Computation at Lincoln College Oxford – I'm a founder member of the Oxford Archimedes Group – and was sponsored by the MoD. Most of my work was covered by the Official Secrets Act, so all I can tell you is that I got to watch the bubbles rising in the liquid supercoolant which surrounds the circuit boards in a Cray 2, which was a right bundle of laughs.

'I hadn't applied for any jobs because I'd made up my mind that I was going to buy a camper van and travel round the UK. I quite fancied investigating all the pubs in England, as I'd not really seen much of the country I lived in. The plan was to fund this by getting any old job for six months then to head off on my own personal road movie.

'By chance I got the latest issue of Risc User and they wanted a technical assistant, so I applied and got the job. On the day I started their technical editor left so I suddenly ended up doing both jobs. The I found out how much camper vans cost and quickly invented Plan B.'

Plan B arrived in the shape of the post of technical editor at *Acorn User,* back in February 1993 when Karen Donaghay was editor and the magazine was published by Redwood Publishing in London. Soon afterwards two major upheavals in the magazine's life took place; Karen left to go travelling in India and *Acorn User* was bought by Europress. Despite his relative inexperience, Mark convinced Europress that he had the imagination and drive needed for the job of editor.

Mark lives – as has been pointed out – above a pub in London. Europress (now IDG Media) is based just north of Macclesfield, over three hours' drive away. However, because so much of the Acorn market is based near London, Europress allowed Mark to stay there, only commuting to Macclesfield for one or two days a week.

'It worked out for the best anyway, but I'd never have moved north again,' says Mark, a native of Stoke-on-Trent turned Londoner, accent and all. 'For the past nine months, and with the aid of a fax modem, I've run *Acorn User* from above a pub. What more could I want?

'In that time I've laid out and typeset an entire issue and two supplements and done a full redesign on the magazine. The redesign was mostly based on *Cosmopolitan* and other women's mags – just because we are a computing magazine doesn't mean we have to look dull, boring and drab. I wanted something that looked good; well-written and interesting, but with the style to match.'

The interview started on the roof of Mark's pub flat in London but the photo was taken at Mottram Hall, a grand hotel in the Cheshire countryside, where Mark stayed when he visited Macclesfield. The endless travelling along the M6 finally got to him; by the time you read this, Mark will be on the other side of the world in Australia, having left his job at the start of October. The Pocket Book's going with him, but only as a very minor part of his luggage.

'There's more to life than computers,' says Mark, as he pauses on a stile in the hotel grounds and considers his future. 'That'll be heresy to some people reading this, but it's true. Occasionally someone would corner me in the pub in the evening and try to talk Acorn at me. I'd tell them to chill out – sometimes I'd be a lot ruder – because there are more important things to do in pubs than discuss RISC OS. Trust me.'

Jill Regan AU

REMOVABLE HARDDRIVE SYSTEM



- ✶ TOTAL DATA SECURITY
- ✶ EASY DATA TRANSFER BETWEEN COMPUTERS
- ✶ IDEAL HARDDISC BACKUP

The removable harddrive system fits into a 5¼" drive slot in the RiscPC and harddrives are available in many sizes which can simply plug in and out of the slot as required. The drive may be locked in place to prevent unauthorized removal. For total security the drive may be removed and stored in a safe place to prevent unauthorized access to your data. Because the removable drives are available in any size (up to at least 1Gb) they are also ideal for use as backups for existing harddrives, and may be easily transported between different computers for rapid transfer of large datafiles. The system is available for use with both IDE and SCSI filing systems.
External boxes are available to enable SCSI removable drives to be used with older Acorn models. Please 'phone for details.

IDE systems

Mounting Kit for IDE systems		£25.00		
Plug in IDE drives:-	425Mb	£154.50	850Mb	£216.00
	1.2Gb	£274.00		

SCSI systems

Mounting Kit for SCSI systems		£29.00		
Plug in SCSI drives:-	730Mb	£246.00	1.0Gb	£345.00
	2Gb	£679.00		

PAL TV CODERS



PLC/3

Price £104.57 inc vat

There are now two coders in our range which cover all Acorn computer models and allow Computer output in virtually all screen modes to be converted to a PAL TV signal suitable for recording to a video recorder or displaying on any TV with a Video input socket.

The PLC/3 is our standard model which works in any of the 'standard TV' modes (eg modes 12 & 15) on all Acorn computer models. (Note that the AKF60 & AKF85 monitors will not work in these modes, although the PLC/3 will still produce a TV output with the RiscPC). The PLC/3 has a 15 pin RGB output for the monitor, a BNC for video and an S-VHS socket for S-Video.



AVK/3

Price £411.25 inc vat

A new addition to the range - the AVK/3 will work with all computer models in all screen modes up to 800 x 600 resolution in 16 million colours. It has a remote control with facilities for zooming, freezing & panning the TV picture. Ideal for lectures and demonstrations etc. The AVK/3 includes all connecting cables including a SCART which gives TV frequency RGB O/P for large screen TV's, a phono socket for composite video and an S-VHS socket for S-Video.

Note:-Older Acorn Computer models may have 9 pin monitor sockets. 9 to 15pin & 15 to 9 pin converters are available at £4.11 each.

NEW ACORN COMPUTER MODELS! - THE RISCPC700 & THE A7000

SPECIAL OFFER - FREE MEMBERSHIP OF THE VIRUS PROTECTION SCHEME AND STUDIO24PRO AT JUST £49.00 WITH ANY RISCPC PURCHASE

RiscPC600 Computers

NB Prices inc VAT & Delivery!

4Mb HD425	+AKF60	£1325
4Mb HD425CD	+AKF60	£1450
4Mb HD425	+AKF85	£1650
4Mb HD425CD	+AKF85	£1775

RiscPC700 Computers

5Mb HD425	+AKF60	£1550
5Mb HD425	+AKF85	£1875
5Mb HD425CD	+AKF60	£1699
5Mb HD425CD	+AKF85	£1999
10Mb HD850	+AKF60	£1949
10Mb HD850	+AKF85	£2249
10Mb HD850CD	+AKF60	£2069
10Mb HD850CD	+AKF85	£2374

486PC Card	£116.32

(Only with RiscPC)

A7000 Computers

NB Prices inc VAT & Delivery!

2Mb Net	+AKF60	£1039
2Mb NetCD	+AKF60	£1169
2Mb HD425	+AKF60	£1099
2Mb HD425CD	+AKF60	£1219
4Mb HD425	+AKF60	£1189
4Mb HD425CD	+AKF60	£1299

RiscPC upgrades:-

1Mb to 2Mb Vram	£116.32
4Mb SIMM Ram	£135.12
8Mb SIMM Ram	£258.50
16Mb SIMM Ram	£405.37
16bit sound card	£69.32

Note: All RiscPC's come with one years on site warranty

3.5" Harddrives

IDE Drives

425Mb	£137.75
850Mb	£199.75
1.2Gb	£255.75

SCSI Drives

730Mb	£226.00
1.0Gb	£325.00
2.0Gb	£659.00

Printers

Colour printers

BJC600E	£419.00
BJC4000	£289.00
Epson Stylus	£419.00

B/W

BJ30	£199.00
BJ200EX	£217.00

SCSI Cards

SCSI Cards

All Computers	£116.32

SCSI Cable

Internal	£9.99
External	£19.99

SCSI II Cards

RiscPC	£199.00

SCSI II Cable

External	£22.32

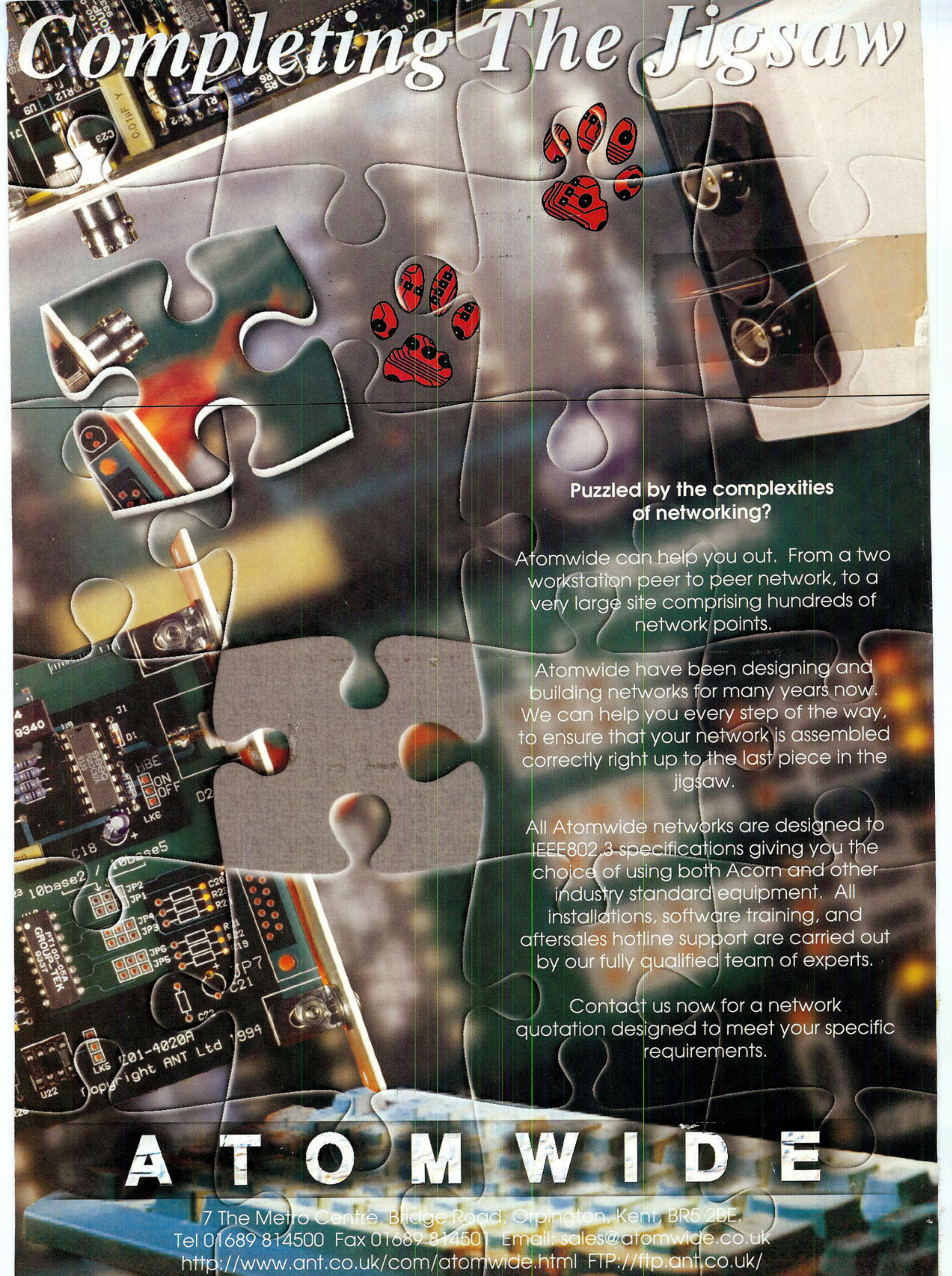
Scanners

IX4015	£675.00
GT8500	£599.00
GT9000	£733.00

Pineapple Software
Suites 13 & 14
South Park Business Centre
310 Green Lane, Ilford
Essex IG1 1XT
Tel 0181 599 1476 Fax 0181 598 2343
email:- sales@pineaple.demon.co.uk

Terms:- All prices *include* 17.5% vat. Carriage FREE to mainland U.K. Phone for quote outside U.K. Official orders, cheques and all major credit cards accepted. Money back guarantee on all products.

For demonstrations of most of our advertised products why not come and visit us in our new offices (easy parking) where you can see most of the Acorn range of computers and other hardware in action.


Completing The Jigsaw
Puzzled by the complexities of networking?
Atomwide can help you out. From a two workstation peer to peer network, to a very large site comprising hundreds of network points.
Atomwide have been designing and building networks for many years now. We can help you every step of the way, to ensure that your network is assembled correctly right up to the last piece in the jigsaw.
All Atomwide networks are designed to IEEE802.3 specifications giving you the choice of using both Acorn and other industry standard equipment. All installations, software training, and aftersales hotline support are carried out by our fully qualified team of experts.
Contact us now for a network quotation designed to meet your specific requirements.
ATOMWIDE
7 The Metro Centre, Bridge Road, Orpington, Kent, BR5 2BE.
Tel 01689 814500 Fax 01689 814501 Email: sales@atomwide.co.uk
http://www.ant.co.uk/com/atomwide.html FTP://ftp.ant.co.uk/